CARDIO
collaborative
assessment of research
data infrastructure and
objectives

User Manual

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1. Introduction

This document presents a guide to using the Digital Curation Centre's CARDIO tool (http://cardio.dcc.ac.uk). It offers an overview of the main features of the tool, a definition of the ways in which users can interact with the tool, and a complete walkthrough of a sample planning process that can be referenced as you conduct your own planning processes.

2. What is CARDIO?

CARDIO (Collaborative Assessment of Research Data Infrastructure and Objectives) is an online collaborative tool that enables a group of researchers and service providers within a higher education organisation to evaluate the capacity of their organisation to effectively manage research data.

The tool enables you and your colleagues to individually assess perceptions of your organisation's research data infrastructure and to then share and discuss these perceptions with the aim of reaching a consensus about the current capacity for research data management.

By collaborating through the CARDIO tool you will then be able to identify practical goals for improvement in data management provision and support, identify any operational inefficiencies and opportunities for cost saving and make a compelling case to senior managers for investment in data management support.

3. System Requirements

The CARDIO tool is an entirely web based tool that works in all modern web browsers in Windows, Linux and Apple OSX. The following web browsers are recommended:

- Mozilla Firefox version 3.5 or higher
- Google Chrome
- Microsoft Internet Explorer version 8 or higher
- Apple Safari

Your browser must have Javascript enabled in order to use the CARDIO tool and a screen resolution of at least 1024x768 is recommended.

4. User Roles

The CARDIO tool features three broad categories of user, although a lot of the functionality available to each user is comparable.

4.1 Research Support Officers (RSO)

This user type is responsible for beginning and managing a planning process. Users who take on this role may have a bespoke post within an organisation, or a more established position such as a subject librarian. Their role within CARDIO is one of coordination between those generating data and representatives of those infrastructural services required to support its effective management. Expected to be an independent facilitator to both communities, the RSO is conscious of the roles and responsibilities of each, with their primary motivation the pursuit of wider organisational objectives consistent with good data management best practice.

The RSO will be responsible for inviting participants to join a planning process, assigning responsibilities to participants, making overall decisions about ratings and progressing a planning process through its five stages.

4.2 Data Originators (DO)

Users of this type will generally be researchers who typically generate digital content and associated descriptive material, and who are reliant on infrastructural services to support the creation, curation and dissemination of research data.

DO users will participate in a planning process by providing their evaluation of the organisation's research data infrastructure, potentially focussing on certain specific aspects, and then engaging with other users to formulate plans for future improvements.

4.3 Service Providers (SP)

Users of this type will provide a service that supports the management of an organisation's research data. This may include representatives from the library, information services, legal support, and financial services.

SP users will supply an evaluation of the services they provide and also potentially other aspects of the research data infrastructure. As with DO users, SP users will also engage with other users through CARDIO to develop plans for future improvements.

5. A brief overview of a CARDIO Planning Process

A CARDIO planning process is split into five stages and one or more user types is involved in each stage.

5.1 Stage 1: Commencement

The RSO is responsible for beginning the planning process and through Stage 1 s/he can supply a variety of contextual information about the nature of the

assessment, which other participants will then be able to reference once they are involved.

Through Stage 1 the RSO will also be able to provide their own evaluation of the research data infrastructure, which will then be shared with other users during Stage 3. The evaluation of the research data infrastructure takes place via a series of individual statements that are presented within three broad categories, or 'legs'.

These legs are named Organisation, Technology and Resources and within each leg there are between eight and eleven statements that relate to each aspect of data management. The RSO can supply a rating of between one (worst or least mature level) and five (best or most mature level) for any of these statements to evaluate how effectively the organisation currently meets the data management needs discussed in the statement. A justification for the rating can also be supplied.

Once the RSO has supplied as many ratings and justifications as s/he thinks appropriate the user can continue to Stage 2.

5.2 Stage 2: Collaboration

When an RSO user views Stage 2 s/he will be able to assign any of the statements within each leg to one or more associated DO or SP users and doing so highlights to these users which statements are of particular importance for them to investigate. The RSO can then make the planning process available to all associated users, which also makes Stage 3 available to the RSO.

When a DO or SP user loads Stage 2 of the process s/he will find the Organisation, Technology and Resources legs and their respective statements listed in the same manner as the RSO in Stage 1, but with certain statements highlighted if the RSO assigned any to the individual user.

The DO or SP user may choose to provide ratings and justifications for any of the listed statements whether they have been assigned to them or not, and once satisfied with the information supplied s/he can finalise Stage 2 and proceed to Stage 3.

5.3 Stage 3: Clarification and Consensus

At this stage all of the users are brought together for the first time. The ratings and justifications supplied by users for each statement are compiled, enabling the participants to see at a glance how their perceptions of the research data infrastructure match the perceptions of other participants and what the overall ratings for each statement are.

Through Stage 3 the participants also have the option of discussing their ratings through a built-in instant messaging system. Using this system, users can discuss any statements where their perceptions differ, and the RSO can mediate in these

discussions. Users may then choose to update their ratings on reflection, and the RSO may choose to record a different overall rating for the statement.

5.4 Stage 4: Conclusion

In stage 4 all of the information previously supplied by users is brought together visually. Ratings are displayed in a variety of graphs to allow the participants to easily tell where improvements may need to be made. If the planning process is based on an earlier iteration of the plan then further graphs comparing ratings over time are also made available.

Also at this stage there are options for the participants to tailor a PDF report of the information that has been generated, which can then be downloaded for use outside the tool.

5.5 Stage 5: Commitment

In the final stage of the planning process the participants should decide which areas of their organisation's data management infrastructure can or should be the focus for improvements. The CARDIO tool recommends a number of ways the rating levels for each of the statements can be improved upon and during this stage the RSO has the option of assigning responsibility for statements to one or more participants. The DO and SP users can then agree to accept responsibility or not, and dates for the next iteration of the planning process can be decided upon.

6. Registering with CARDIO

Registering with CARDIO is free of charge. If you would like to set up and manage one or more planning processes for your organisation you should register as a Research Support Officer (RSO). As mentioned in Section 4.1 above, RSO users can create and manage planning processes, including inviting other users to participate as Data Originator (DO) and Service Provider (SP) users.

To register as an RSO, go to the CARDIO homepage and either click on the **Register for free** button in the bottom right of the main page, or click on the **Log in, Register, Request Password** link in the top right then click on the **Register Here** link in the section that appears. Clicking on one of these links will load the registration page, as shown below:

CARDIO
collaborative assessment of research data infrastructure and objectives
Home
About
Log In, Register, Request Password
Register
Please read the terms of participation.
*Username:
*Forename:
*Surname:
*Organisation:
*Password:
*Re-type password:
*E-mail:
Role:
Submit
Terms of Participation
1. Joining CARDIO is free of charge.
2. A valid email address must be supplied for your account to be activated.
3. Your supplied email address will not be passed on to any other organisations.
4. The website administrator retains the right to remove users from the system and to edit or remove contents published on the website by the users.
Back to top
Notices | Contact
University of Glasgow | Humanities Advanced Technology & Information Institute
DCC
JISC

Screenshot 1: Registration page

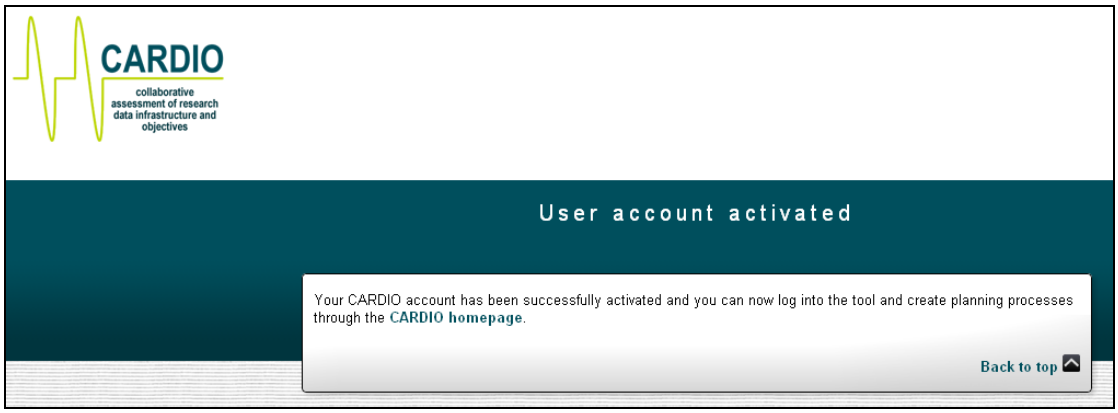
Any field marked with a red asterisk must be completed and a valid email address must be supplied as the tool will send an activation code to the supplied email address.

The 'Organisation' field contains all of the UK HE institutions. You should choose the institution you are affiliated with as this information will automatically populate any planning processes you make. Note however that you may select a different organisation when creating a planning process if, for example, you are working as a consultant for a different organisation.

In the 'Role' field you should enter your current role at your organisation. This field will not have a bearing on the options made available to you within CARDIO, it is purely for reference only.

Upon submitting the registration form a notification email will be sent to your supplied email address. If you do not receive this email your spam filter may have moved it to your junk mail folder. Within the email is an activation link. Click on this link to complete the registration process. Note that some email clients split long links over multiple lines and occasionally only display a partial link. The email contains instructions on where the full link ends and you should make sure the full link appears in your web browser when you click on it.

Once you click on the link you should be presented with a page similar to the following screenshot and the registration process will now be complete. A further notification email will also be sent to your account.


CARDIO
collaborative assessment of research data infrastructure and objectives
User account activated
Your CARDIO account has been successfully activated and you can now log into the tool and create planning processes through the CARDIO homepage.
Back to top

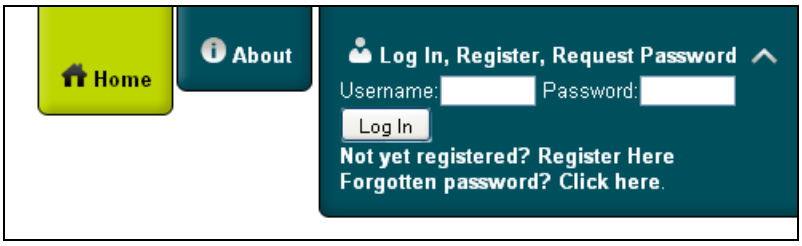
Screenshot 2: Account activation page

If another member of your organisation will take on the role of RSO you may still register using the process mentioned above. Alternatively you may wait until the RSO invites you to participate in a planning process, at which point you will receive a notification email containing a link to a registration page.

This form is identical to the form mentioned above except your email address will already be filled in and contact details for the RSO who asked you to participate will be displayed. In addition, you will not have to verify your email address.

7. Logging in and managing your user account

To log into your account go to the CARDIO homepage and click on the **Log in, Register, Request Password** link in the top right of the page. This will display boxes into which you may enter your username and password, as shown below:



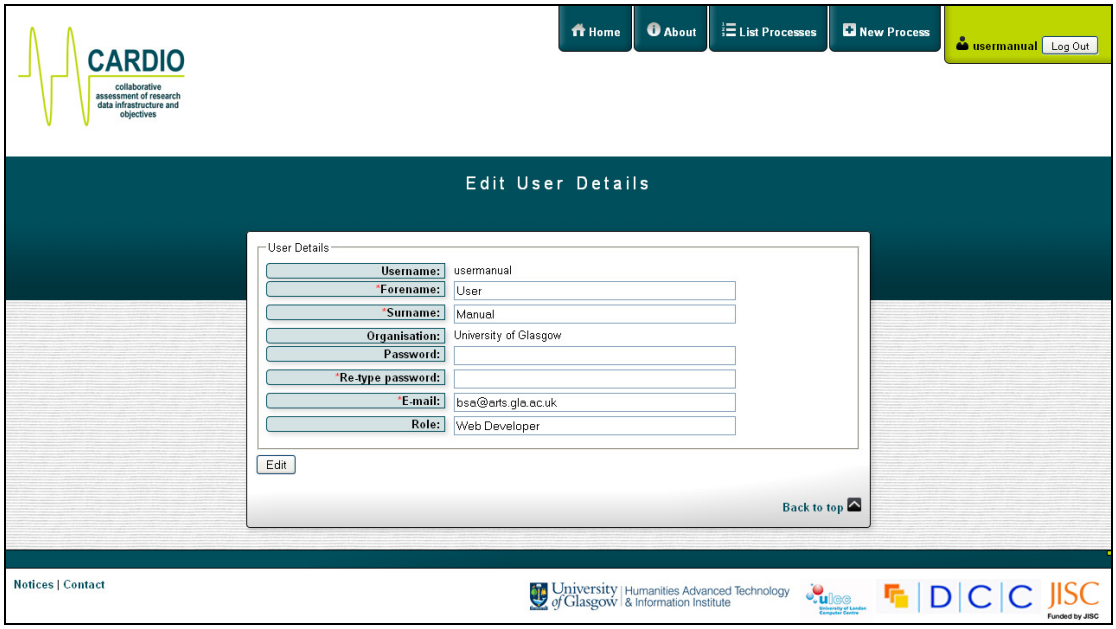
Screenshot 3: The log-in box

After entering the correct log in details the page will reload with the options that are available to logged-in users.

If you have forgotten your password (or your username) click on the **Forgotten password? Click here** link and enter your email address in the form that loads. An email featuring a link to a page where a new password can be submitted will be sent to you. This email will also contain your username if you have forgotten this.

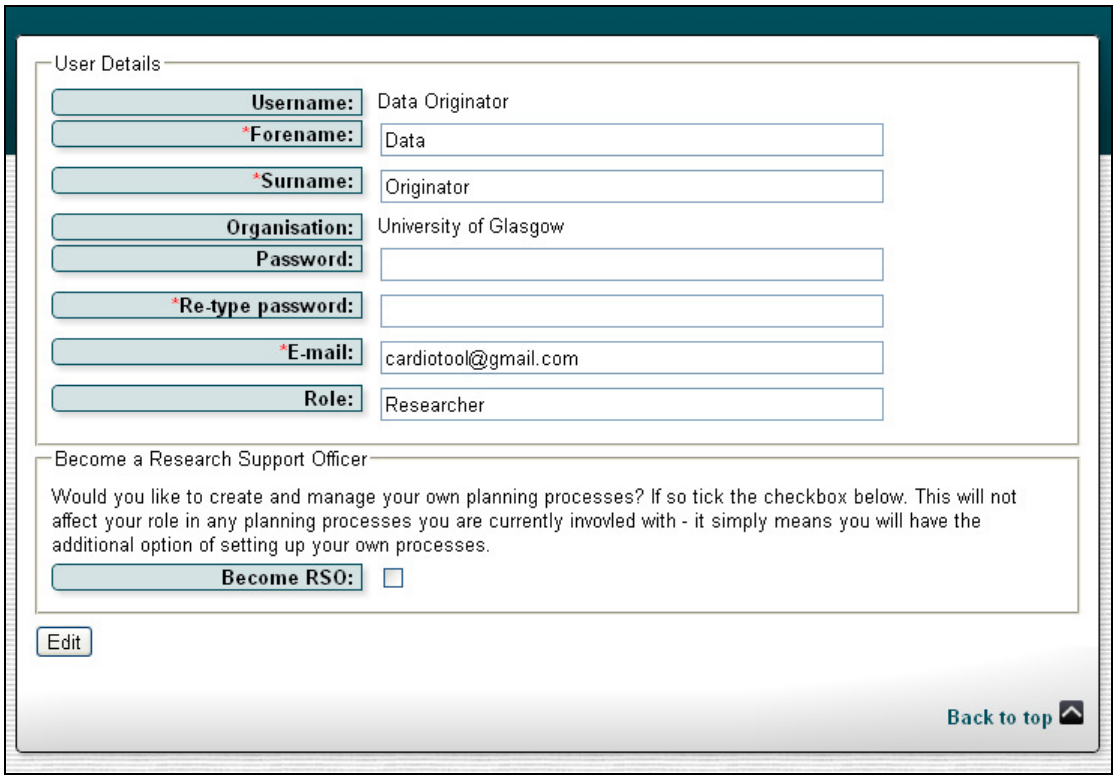
Once you are logged in the log-in box in the top right will be replaced with a box containing your username and a **Log Out** button. Clicking on the log out button will sign you out of CARDIO and will return you to the homepage. If you click on your

username a page will load where you can edit your user details, as shown in the following screenshot. Through this page you may update any of your details except for your username and your organisation.



Screenshot 4: Edit user details

If you have registered with CARDIO as the result of an invitation from an RSO you will only be able to participate in planning processes that an RSO has invited you to join. If you would like to conduct your own planning processes you may 'upgrade' your user account to an RSO account through the edit user details page, as the following screenshot demonstrates:

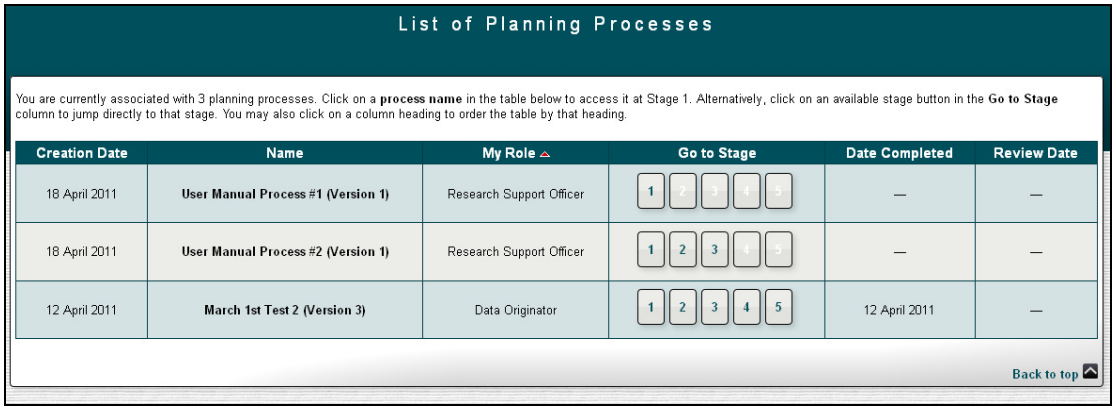

User Details
Username:
Data Originator
*Forename:
Data
*Surname:
Originator
Organisation:
University of Glasgow
Password:
*Re-type password:
*E-mail:
cardiotool@gmail.com
Role:
Researcher
Become a Research Support Officer
Would you like to create and manage your own planning processes? If so tick the checkbox below. This will not affect your role in any planning processes you are currently involved with - it simply means you will have the additional option of setting up your own processes.
Become RSO:
Edit
Back to top

Screenshot 5: Upgrading a user account through the edit user details page

Note that upgrading your account in this manner will not affect your involvement in any existing or future planning processes managed by another RSO user; it simply means you may conduct your own planning processes in addition to contributing to those being managed by another RSO user.

8. Listing your Planning Processes

Click on the **List Processes** link in the list of tabs at the top of the page to view a list of all the processes you are involved with in the capacity of RSO, DO or SP. Your processes will be listed in a table with one row per process, as the following screenshot demonstrates:


List of Planning Processes
You are currently associated with 3 planning processes. Click on a process name in the table below to access it at Stage 1. Alternatively, click on an available stage button in the Go to Stage column to jump directly to that stage. You may also click on a column heading to order the table by that heading.
Creation Date
Name
My Role
Go to Stage
Date Completed
Review Date
18 April 2011
User Manual Process #1 (Version 1)
Research Support Officer
1 2 3 4 5
–
–
18 April 2011
User Manual Process #2 (Version 1)
Research Support Officer
1 2 3 4 5
–
–
12 April 2011
March 1st Test 2 (Version 3)
Data Originator
1 2 3 4 5
12 April 2011
–
Back to top

Screenshot 6: List of Planning Processes

Change the order of the table by clicking on a column name. You can load a planning process at Stage 1 by clicking on its name. Alternatively the **Go to Stage** column displays each of the five stages for every process as a button. Stages that are available to you display their number in blue text and clicking on the number loads the appropriate stage. Stages that are not yet accessible appear with a white number.

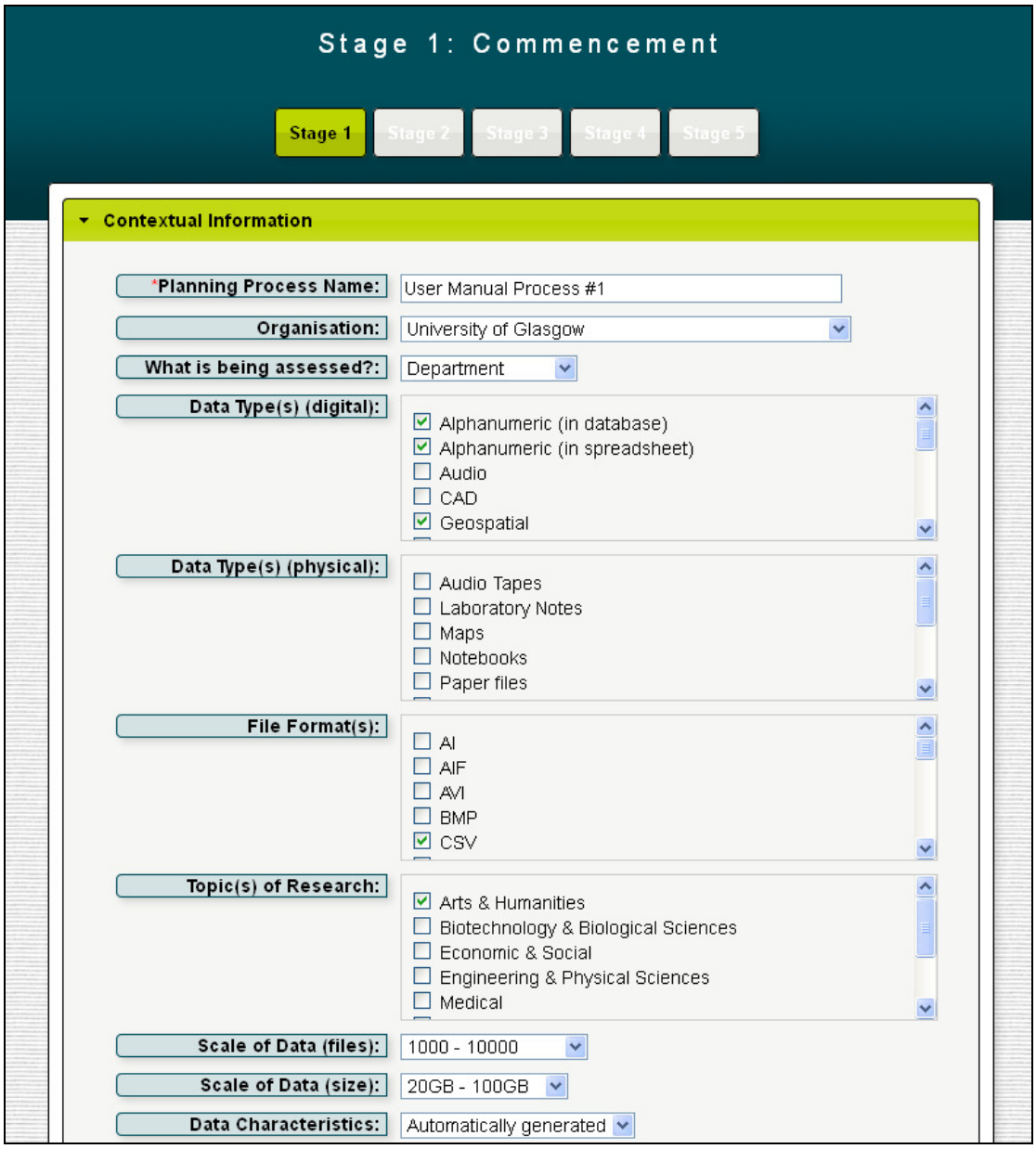
9. Beginning a new Planning Process

If you are registered as an RSO you may begin a new planning process by clicking on the **New Process** link in the top level tabs. Doing so will load a page where you can initiate a planning process. This will either present Stage one of the planning process or, if you have already completed a planning process, you will be given the option of basing your new process on a previously completed version. See Section 21 below for more information on starting a new iteration of a planning process.

Within the blue bar of each page associated with a planning process you will find buttons showing the five stages of the process. The stage you are currently viewing will be highlighted in green. Any stages that are available to you will display their text in blue and you may navigate to a stage by clicking on the button. The buttons for any stages that are not currently accessible will feature text in white and will not be clickable, as shown in the screenshot below.

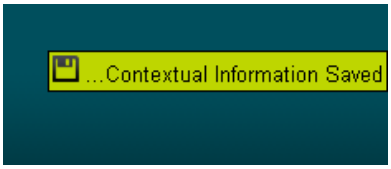
The first step of a new planning process is to supply some contextual information, such as a name, data types involved and scale of data, as the following screenshot demonstrates. The only mandatory information is the planning process name, which will be used by all participants as a means of identifying a process. However, it is useful to supply as much information as you can as this will help the other participants in your process to gain an understanding of exactly what is being assessed. The contextual information supplied will also automatically populate a subsequent iteration of the process (see Section 21 below for more details). You may supply further contextual information through Stage 1 after the initial upload of data so if more information becomes available this can be added.

Note that the contextual information is used purely as an aid to the planning process and will not affect any options that are available to you in subsequent stages of the process.



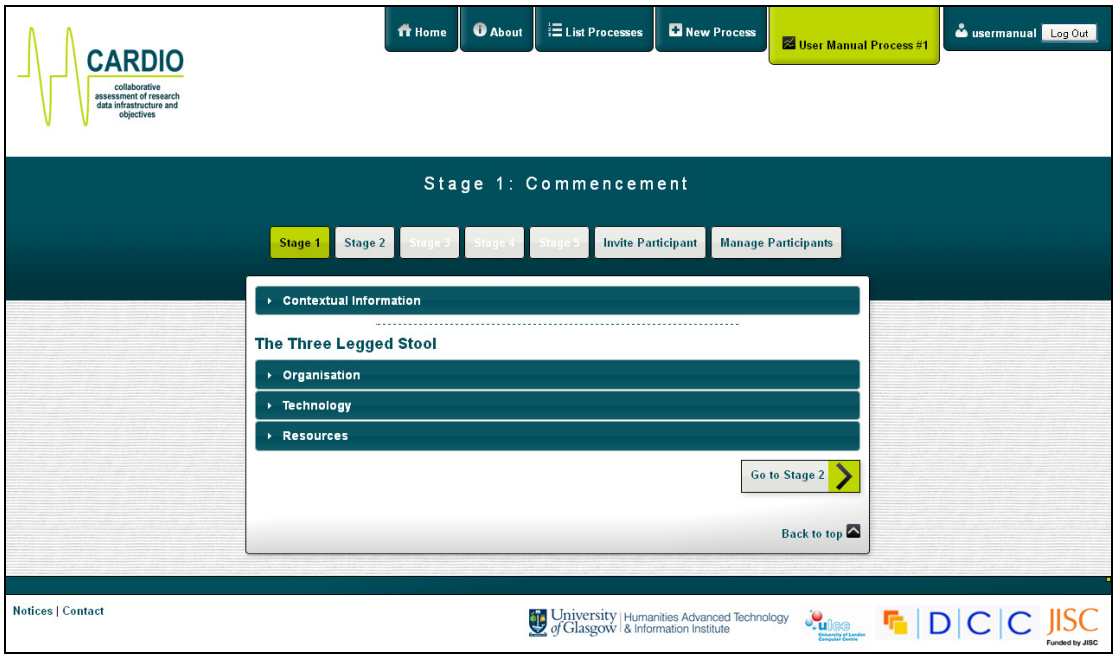
Screenshot 7: Stage 1 contextual information (section)

Once you are satisfied with the information you have supplied click on the **Update** button to save it. A green notification box will temporarily appear towards the right of the screen to inform you that the data has been recorded, as the following screenshot demonstrates. Such notification boxes are used throughout the five CARDIO stages.



Screenshot 8: The notification box

After submitting the contextual information for the first time Stage 1 will reload with more information and options available, as the following screenshot demonstrates:



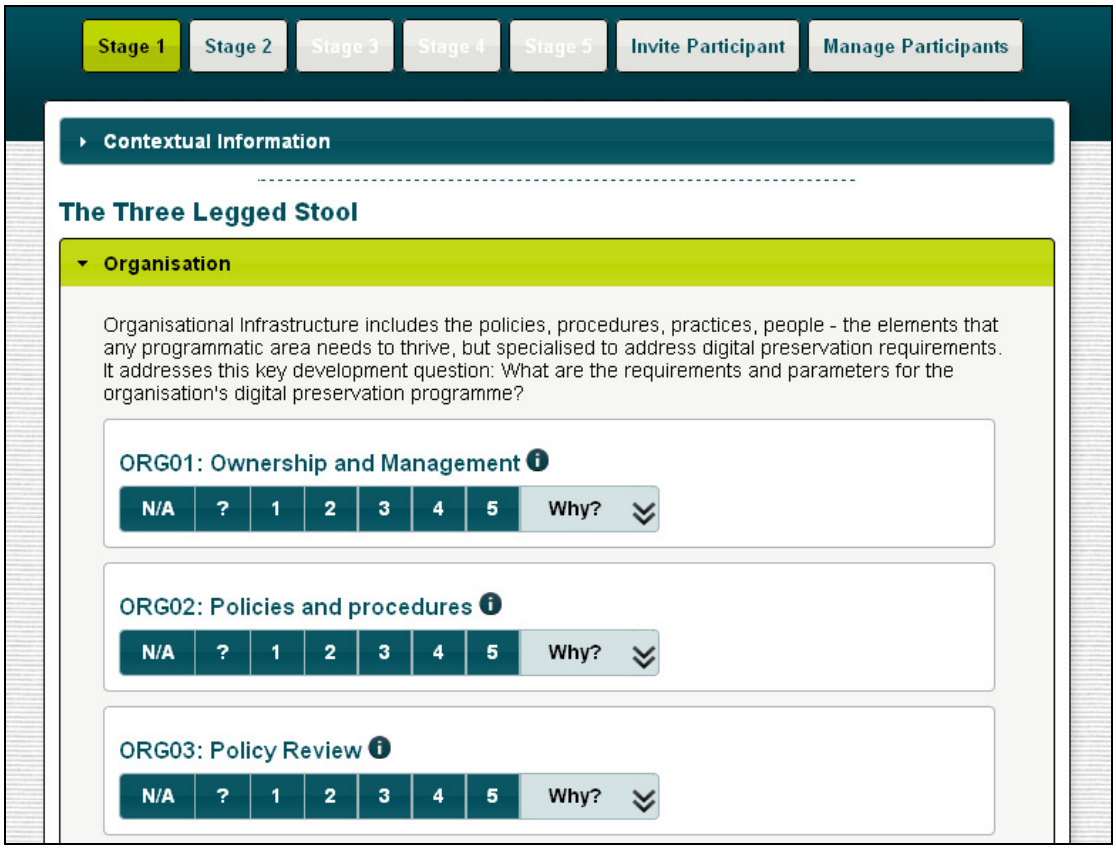
Screenshot 9: Stage 1 after submitting contextual information

Once the contextual information has been submitted your chosen planning process name will appear as the selected tab in the top layer of tabs. Stage 2 will also become available through the stage buttons in the blue bar and the **Go to Stage 2** button. Within the blue bar there will also be buttons for inviting and managing participants. Finally, the Three Legged Stool section containing the statements grouped into Organisation, Technology and Resources legs will be available underneath the contextual information. Note that you can still access and update all of your contextual information by clicking on the **Contextual Information** link to expand that section of the page.

10. The Three Legged Stool

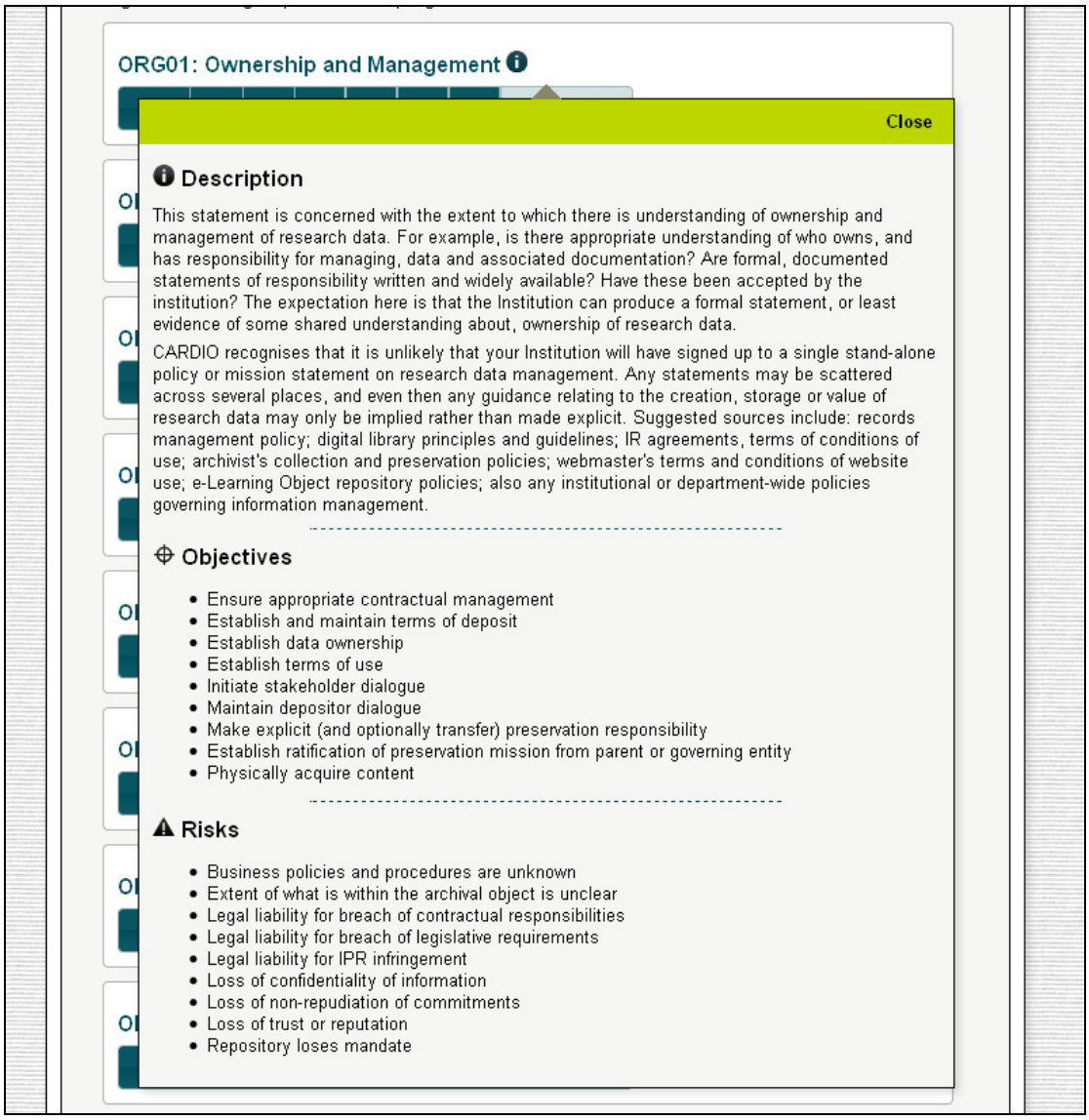
Within CARDIO the evaluation of research data infrastructure takes place within three categories or 'legs'. The **Organisation** leg focuses on organisational infrastructure such as policies, procedures and people. The focus of the **Technology** leg is on the technological infrastructure that supports research data management while the third leg, **Resources**, focuses on issues such as funding.

Within the CARDIO tool the three legs are presented as sections within the web page, as can be seen in Screenshot 9 above. Clicking on a leg will expand it, giving you access to each of the statements contained within, as the following screenshot demonstrates.


Stage 1
Stage 2
Stage 3
Stage 4
Stage 5
Invite Participant
Manage Participants
Contextual Information
The Three Legged Stool
Organisation
Organisational Infrastructure includes the policies, procedures, practices, people - the elements that any programmatic area needs to thrive, but specialised to address digital preservation requirements. It addresses this key development question: What are the requirements and parameters for the organisation's digital preservation programme?
ORG01: Ownership and Management
N/A ? 1 2 3 4 5 Why?
ORG02: Policies and procedures
N/A ? 1 2 3 4 5 Why?
ORG03: Policy Review
N/A ? 1 2 3 4 5 Why?

Screenshot 10: Statements within a Leg

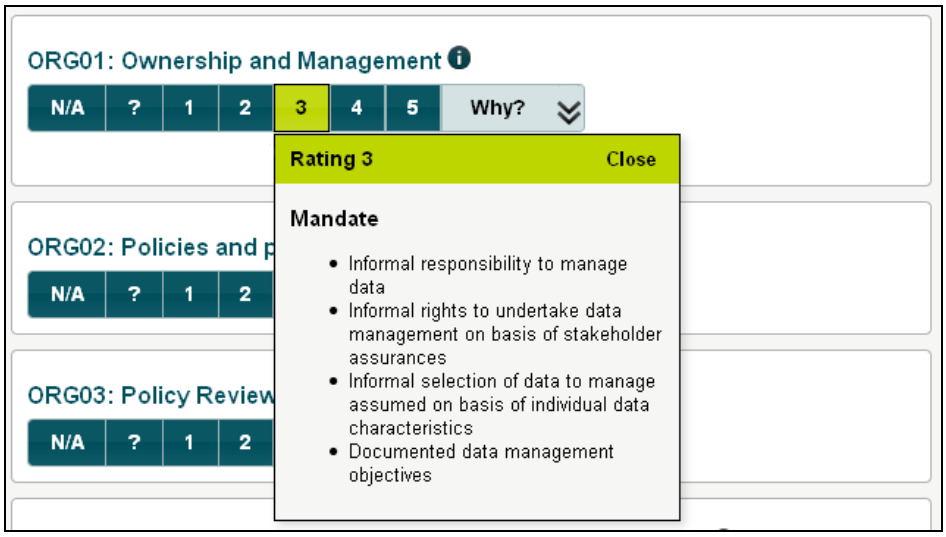
Each statement consists of a title, a description and a set of associated objectives and risks. Positioning your mouse cursor over a statement title will open a pop-up where the statement's description, objectives and risks can be viewed, as shown in the screenshot below:


ORG01: Ownership and Management
Close
Description
This statement is concerned with the extent to which there is understanding of ownership and management of research data. For example, is there appropriate understanding of who owns, and has responsibility for managing, data and associated documentation? Are formal, documented statements of responsibility written and widely available? Have these been accepted by the institution? The expectation here is that the Institution can produce a formal statement, or least evidence of some shared understanding about, ownership of research data.
CARDIO recognises that it is unlikely that your Institution will have signed up to a single stand-alone policy or mission statement on research data management. Any statements may be scattered across several places, and even then any guidance relating to the creation, storage or value of research data may only be implied rather than made explicit. Suggested sources include: records management policy; digital library principles and guidelines; IR agreements, terms of conditions of use; archivist's collection and preservation policies; webmaster's terms and conditions of website use; e-Learning Object repository policies; also any institutional or department-wide policies governing information management.
Objectives
Ensure appropriate contractual management
Establish and maintain terms of deposit
Establish data ownership
Establish terms of use
Initiate stakeholder dialogue
Maintain depositor dialogue
Make explicit (and optionally transfer) preservation responsibility
Establish ratification of preservation mission from parent or governing entity
Physically acquire content
Risks
Business policies and procedures are unknown
Extent of what is within the archival object is unclear
Legal liability for breach of contractual responsibilities
Legal liability for breach of legislative requirements
Legal liability for IPR infringement
Loss of confidentiality of information
Loss of non-repudiation of commitments
Loss of trust or reputation
Repository loses mandate

Screenshot 11: A statement's description, objectives and risks

Once you have finished reading the information relating to a statement you can close the pop-up by clicking on the **Close** link. If you feel that a statement is relevant to your organisation and it would be useful for you to provide an evaluation of how your organisation copes with the related objectives and risks you can provide a rating for the statement. As shown in Screenshot 10 above, beneath each statement is a set of rating levels, featuring buttons for **Not Applicable**, **Unknown**, and ratings **1-5**.

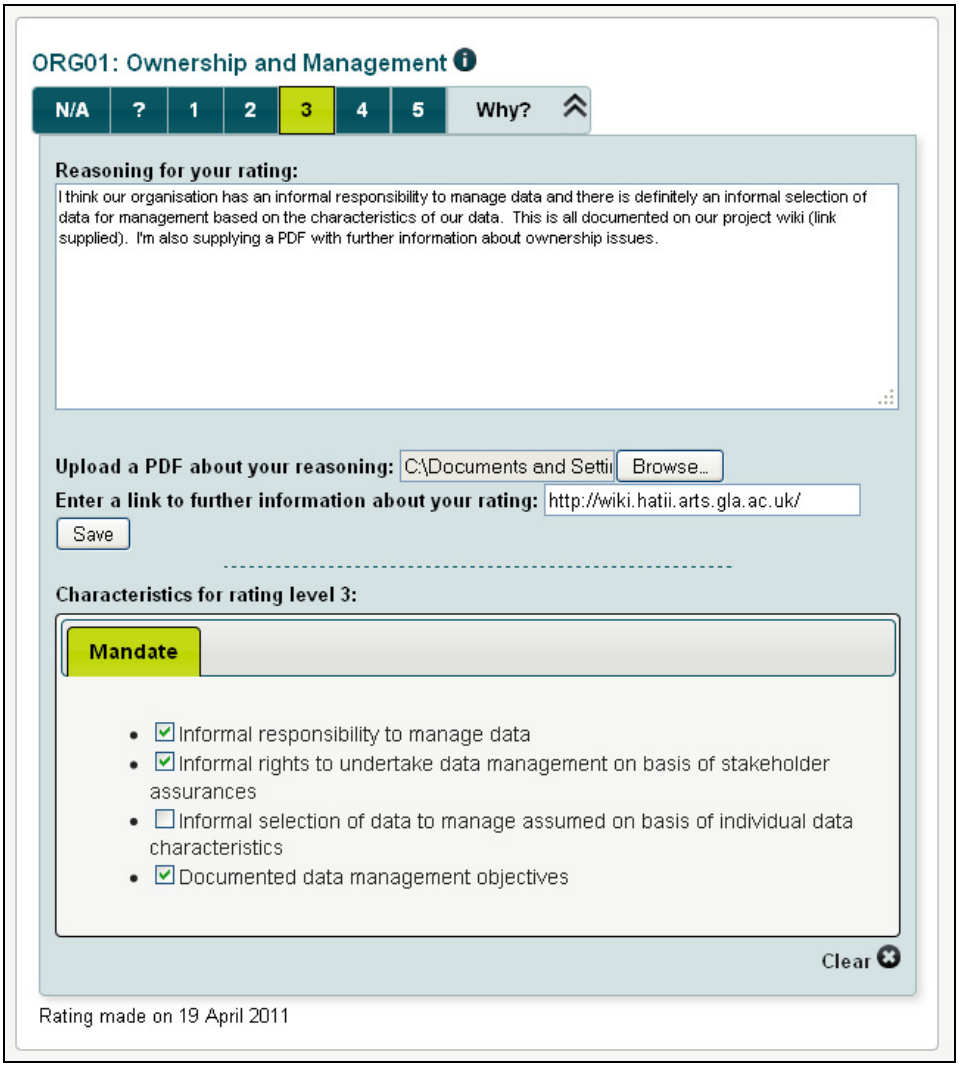
If you position your mouse cursor over one of the rating levels a pop-up will display characteristics that an organisation exhibiting this rating level might be expected to feature, as the following screenshot demonstrates.



Screenshot 12: Characteristics associated with a rating level

In the rating scale, point 1 always represents the least developed, least well established or 'worst' level while point 5 always represents the best possible or the most mature level. After finding a rating level you think matches your organisation click on it to register your rating. This will store your rating in the system and will record the date your rating was made. Note that until you proceed to the next stage of the process you may update your ratings as many times as you wish.

Beside each set of rating buttons there is another button labelled **Why?**. It may to useful to document why a particular rating level was selected for a statement and clicking on the **Why?** button displays a section where you can record this justification. You can supply your reasoning by typing into a text area, by uploading a PDF, by supplying a link to an external web page or a combination of all three, as shown in the following screenshot:


ORG01: Ownership and Management
N/A
?
1
2
3
4
5
Why?
Reasoning for your rating:
I think our organisation has an informal responsibility to manage data and there is definitely an informal selection of data for management based on the characteristics of our data. This is all documented on our project wiki (link supplied). I'm also supplying a PDF with further information about ownership issues.
Upload a PDF about your reasoning:
C:\Documents and Setti
Browse...
Enter a link to further information about your rating:
http://wiki.hatii.arts.gla.ac.uk/
Save
Characteristics for rating level 3:
Mandate
Informal responsibility to manage data
Informal rights to undertake data management on basis of stakeholder assurances
Informal selection of data to manage assumed on basis of individual data characteristics
Documented data management objectives
Clear
Rating made on 19 April 2011

Screenshot 13: The 'Why?' box showing reasoning and characteristics

Once you have supplied your reasoning click on the **Save** button to upload it.

Beneath the reasoning boxes there is a further section that contains the characteristics that are associated with the rating level. If there are multiple types of characteristic (for example Mandates and Actions) these will appear in separate tabs – click on the tab to show the characteristics.

Clicking on the checkbox next to a characteristic that is applicable to your organisation will save it in the system. Selected characteristics will form the basis for suggested improvements to your organisation's data management practices during Stage 5 (see Section 18 below) so it is useful to record them.

After uploading your reasoning and selecting characteristics it's still possible to update this information at any point until you proceed Stage 3 in the process, either by individually deleting or unselecting information, or removing it all at once by clicking on the **Clear** link in the bottom right. This will also clear your previously selected rating for the statement.

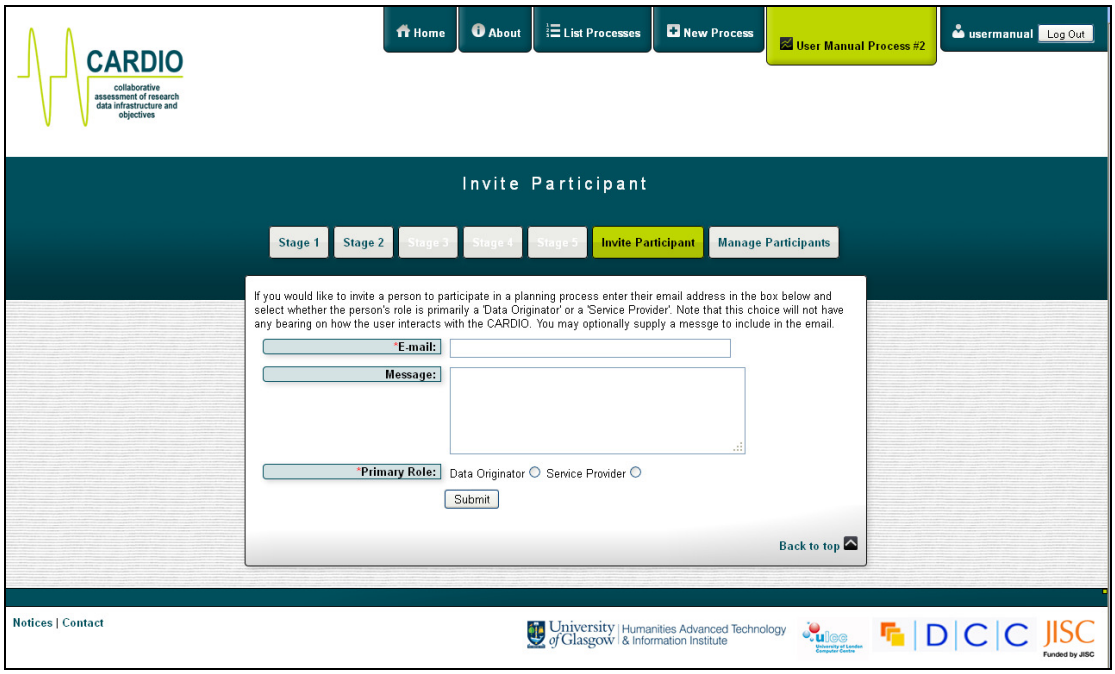
If you are viewing statements as a DO or SP user it's possible that one or more statements may have been assigned to you by the RSO. Such statements will be surrounded by a yellow box as the following screenshot demonstrates. Note that you are still able to supply ratings for any of the other statements that have not been assigned to you.

ORG04: Sharing of Research Data / Access to Research Data
N/A ? 1 2 3 4 5 Why?
ORG05: Preservation and Continuity of Research Data
N/A ? 1 2 3 4 5 Why?
ORG06: Internal Audit of research activities
N/A ? 1 2 3 4 5 Why?

Screenshot 14: A highlighted statement assigned to the user by the RSO

11. Inviting and Managing participants in the Planning Process

As an RSO user you are responsible for inviting others to participate in a planning process, keeping track of who is participating and, if necessary, removing previously associated people. These tasks can be accomplished through CARDIO by clicking on the **Invite Participant** and **Manage Participants** buttons that appear alongside the Stage buttons in the blue bar for your planning process. To invite a new participant, click on the **Invite Participant** button and a page similar to the following screenshot will load:

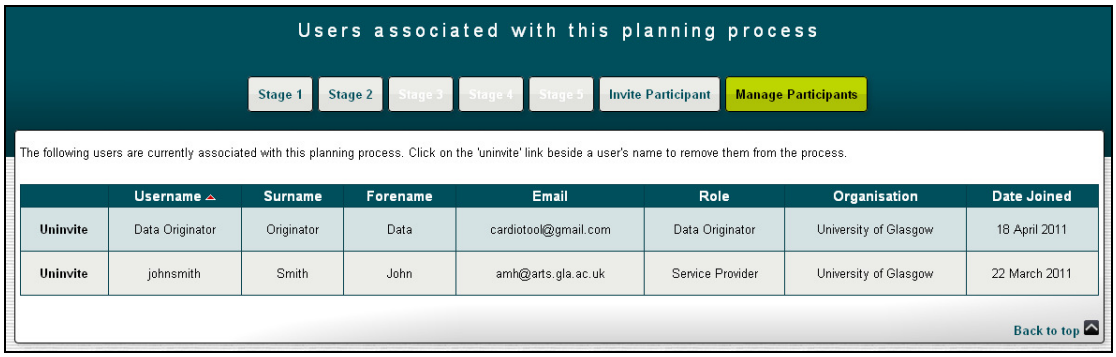

Home
About
List Processes
New Process
User Manual Process #2
usermanual
Log Out
CARDIO
collaborative assessment of research data infrastructure and objectives
Invite Participant
Stage 1
Stage 2
Stage 3
Stage 4
Stage 5
Invite Participant
Manage Participants
If you would like to invite a person to participate in a planning process enter their email address in the box below and select whether the person's role is primarily a 'Data Originator' or a 'Service Provider'. Note that this choice will not have any bearing on how the user interacts with the CARDIO. You may optionally supply a messge to include in the email.
*E-mail:
Message:
*Primary Role:
Data Originator
Service Provider
Submit
Back to top
Notices | Contact
University of Glasgow | Humanities Advanced Technology & Information Institute
DCC
JISC
Funded by JISC

Screenshot 15: The Invite Participants page

To invite a person simply enter their email address, supply an option message you would like the invitation email to contain and select whether the person should participate as a Data Originator or a Service Provider.

Upon submitting the form an email will be sent to the individual, enabling them to sign up as a participant. After they have signed up you will be sent a notification.

In order to view a list of all the participants in your process click on the **Manage Participants** link. Participants are listed in a tabular manner, and clicking on a column heading allows you to order the table by that column, as shown in the following screenshot:


Users associated with this planning process
Stage 1
Stage 2
Stage 3
Stage 4
Stage 5
Invite Participant
Manage Participants
The following users are currently associated with this planning process. Click on the 'uninvite' link beside a user's name to remove them from the process.
Back to top

	Username	Surname	Forename	Email	Role	Organisation	Date Joined
Uninvite	Data Originator	Originator	Data	cardiotool@gmail.com	Data Originator	University of Glasgow	18 April 2011
Uninvite	johnsmith	Smith	John	amh@arts.gla.ac.uk	Service Provider	University of Glasgow	22 March 2011

Screenshot 16: List of Participants

If you need to remove a person from a planning process you can achieve this by clicking on the **Uninvite** link beside a person's username. Doing so will load a form where you can optionally supply a message that will be sent to the individual you are removing, as shown in the following screenshot:

Send a message to the user
Stage 1
Stage 2
Stage 3
Stage 4
Stage 5
Invite Participant
Manage Participants
Return to Manage Participants page
An email will be sent to amh@arts.gla.ac.uk informing John Smith that they will no longer be associated with the planning process. If you would like to include a personalised message please enter it into the box below:
Message:
Submit
Back to top

Screenshot 17: Uninviting a participant

After submitting the form the user will no longer be able to view or contribute to the planning process, but any content such as ratings that they have previously supplied will still be available as part of the process.

12. Stage 2 for RSO users

As an RSO user you have the option through Stage 2 of assigning particular statements to individual participants and activating Stage 2 for all participants. Once you are satisfied with your ratings in Stage 1 click on the **Go to Stage 2** button in the bottom right of the page. Stage 2 will then load, presenting you with the familiar three legs of Organisation, Technology and Resources. If you click on a leg to expand it you will see all of the statements within the leg presented in a tabular manner as the following screenshot demonstrates:

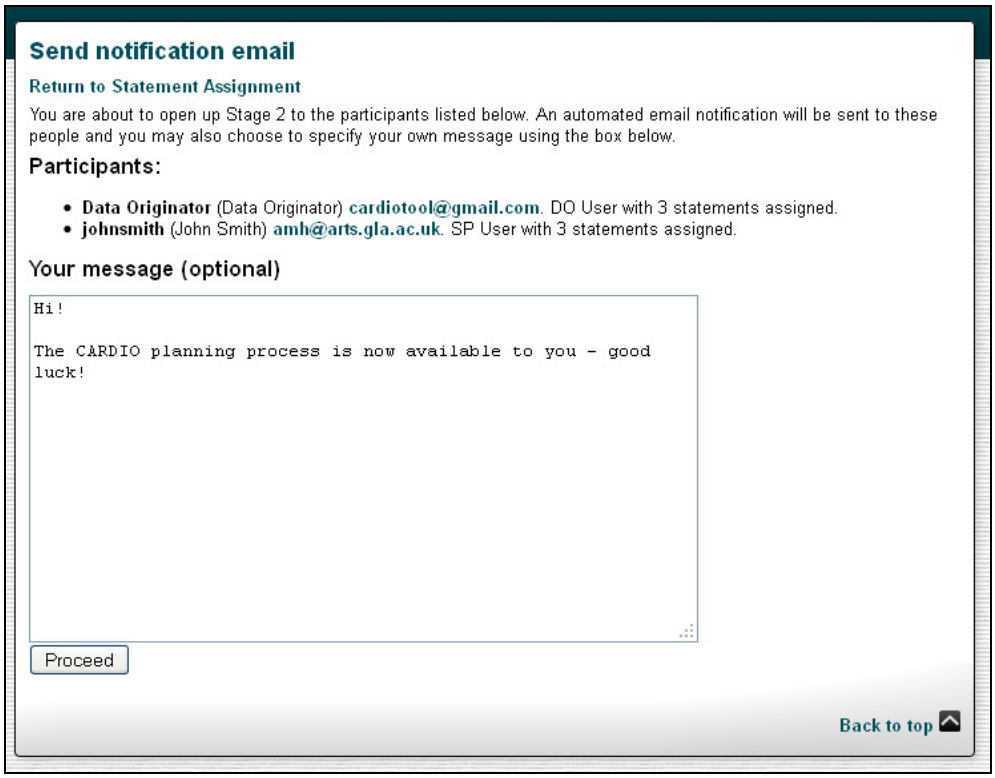
Stage 2: Collaboration
Stage 1
Stage 2
Stage 3
Stage 4
Stage 5
Invite Participant
Manage Participants
Organisation
Organisational Infrastructure includes the policies, procedures, practices, people - the elements that any programmatic area needs to thrive, but specialised to address digital preservation requirements. It addresses this key development question: What are the requirements and parameters for the organisation's digital preservation programme?
Statement
Data Originator (DO)
johnsmith (SP)
My Rating
ORG01: Ownership and Management
ORG02: Policies and procedures
ORG03: Policy Review
ORG04: Sharing of Research Data / Access to Research Data
ORG05: Preservation and Continuity of Research Data
ORG06: Internal Audit of research activities

Screenshot 18: Assigning statements to participants in Stage 2

As with Stage 1, positioning your mouse cursor over a statement title will display the statement's description, objectives and risks. The table contains columns for each of the participants you have invited, plus a final column that lists the ratings you have given each statement (if applicable). If you hover over a participant's username in a column heading a pop-up will load that displays some information about the user such as their name and email address.

If you wish to assign a statement to a participant simply click on the relevant checkbox in the participant's column. Doing so will automatically save the assignment, and you can remove the association by clicking on the checkbox again. Assigning statements is a purely optional part of the CARDIO process, and users are still able to submit ratings for statements they have not been assigned to. The assignment of statements simply highlights the chosen statements in yellow when the user comes to view the legs with the aim of helping the user tell at a glance which statements are of the most relevance to them. Note that it is perfectly acceptable to assign a statement to multiple participants or leave a statement unassigned.

Once you have made all the statement assignments you consider necessary you can choose to activate Stage 2 for all users by clicking on the **Activate Stage 2 for all users and send notification emails** button at the bottom right of the page. Doing so will load a page that enables you to send a customised email to each of the participants of your planning process, as shown in the following screenshot:


Send notification email
Return to Statement Assignment
You are about to open up Stage 2 to the participants listed below. An automated email notification will be sent to these people and you may also choose to specify your own message using the box below.
Participants:
Data Originator (Data Originator) cardiotool@gmail.com. DO User with 3 statements assigned.
johnsmith (John Smith) amh@arts.gla.ac.uk. SP User with 3 statements assigned.
Your message (optional)
Hi!
The CARDIO planning process is now available to you - good luck!
Proceed
Back to top

Screenshot 19: Notification email for activating Stage 2

As the above screenshot demonstrates, each associated participant is listed on the page, together with their email address, their user type (Data Originator or Service Provider) and the number of statements that have been assigned to them. Once you are ready to activate Stage 2 click on the **Proceed** button to continue.

At this point notification emails will be sent to the participants who will now be able to access Stage 2 and supply their own ratings. Stage 3 will now be accessible to you and you will no longer be able to update the rating and justification information you supplied through Stage 1 of the process.

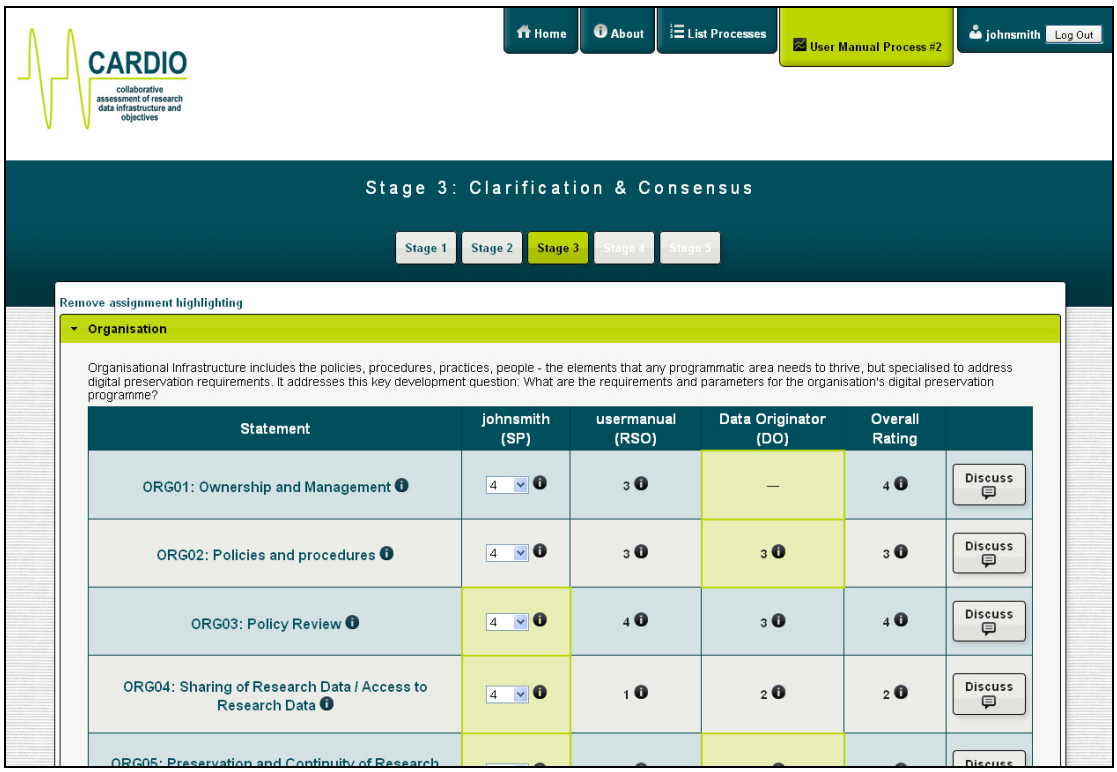
13. Stage 2 for DO and SP users

Once you have received the email notifying you that the planning process is available you may navigate to the process using the list of processes, as described in Section 8 above. Stage 2 of the planning process will feature the three legged stool through which you can view and rate statements relating to your organisation's research data infrastructure. Please see Section 10 above for detailed information about accessing statement information and providing ratings and justifications.

Once you have supplied all of the ratings and justifications that are applicable, click on the **Finalise your ratings and proceed to Stage 3** button in the bottom right of the page to continue. Note that once you do this you will no longer be able to edit the information you entered during Stage 2.

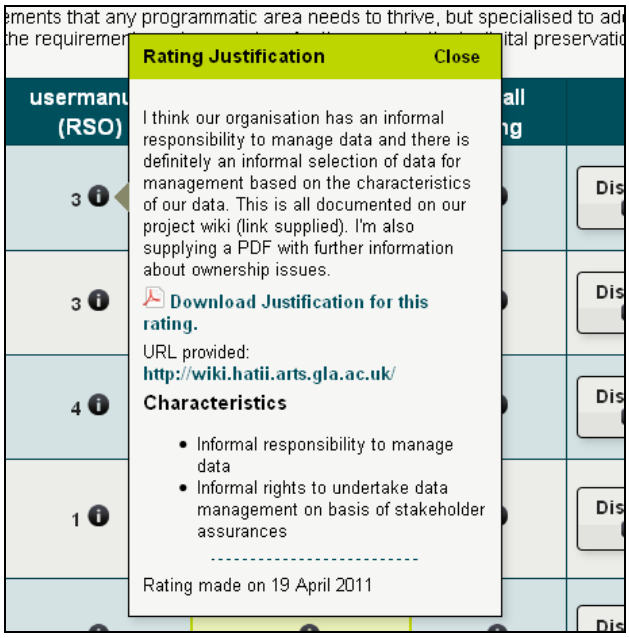
14. Stage 3

At Stage 3 all users have a chance to see the ratings and justifications of the other participants for the first time. Stage 3 consists of the familiar three legged stool approach, and clicking on a leg expands it to show all of the statements contained within it. The statements are listed in a table with one column containing the ratings of each of the participants, a column containing the overall rating, plus a **Discuss** button. Above the sections for each leg there is also a **Highlight assignments** link. Clicking on this will highlight which statements have been assigned to each user in the table, as the following screenshot demonstrates:


CARDIO
collaborative assessment of research data infrastructure and objectives
Home
About
List Processes
User Manual Process #2
johnsmith
Log Out
Stage 3: Clarification & Consensus
Stage 1
Stage 2
Stage 3
Stage 4
Stage 5
Remove assignment highlighting
Organisation
Organisational Infrastructure includes the policies, procedures, practices, people - the elements that any programmatic area needs to thrive, but specialised to address digital preservation requirements. It addresses this key development question: What are the requirements and parameters for the organisation's digital preservation programme?
Statement
johnsmith (SP)
usermanual (RSO)
Data Originator (DO)
Overall Rating
ORG01: Ownership and Management
ORG02: Policies and procedures
ORG03: Policy Review
ORG04: Sharing of Research Data / Access to Research Data
Discuss

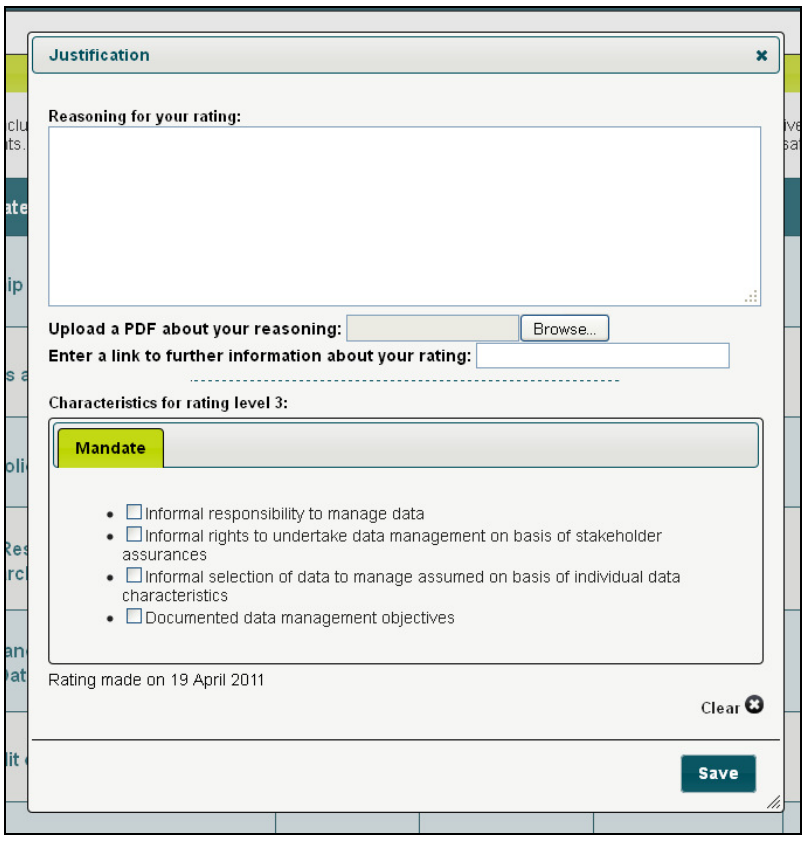
Screenshot 20: Stage 3 showing statement highlighting

If you position your cursor over a participant's username in the table header a pop-up will appear that supplies some information about the user, such as their name, email address and role. If you position your cursor over the 'i' icon beside a user's rating a pop-up will load that contains all of the reasoning, justification and characteristics that the participant has supplied, as the following screenshot demonstrates:


Rating Justification
Close
I think our organisation has an informal responsibility to manage data and there is definitely an informal selection of data for management based on the characteristics of our data. This is all documented on our project wiki (link supplied). I'm also supplying a PDF with further information about ownership issues.
Download Justification for this rating.
URL provided:
http://wiki.hatii.arts.gla.ac.uk/
Characteristics
Informal responsibility to manage data
Informal rights to undertake data management on basis of stakeholder assurances
Rating made on 19 April 2011

Screenshot 21: Pop-up containing a user's rating information

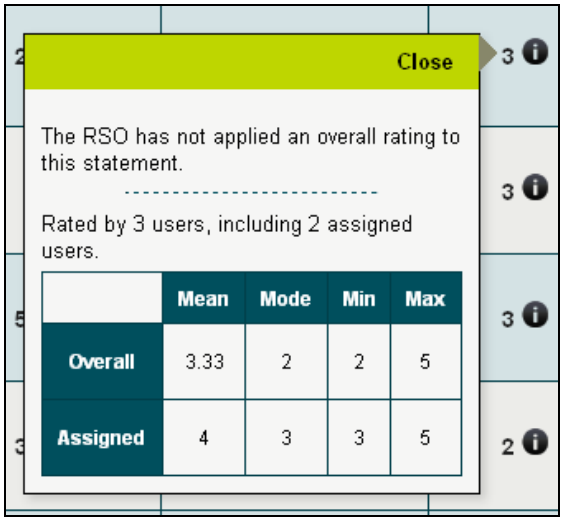
Through Stage 3 it is possible to update a rating you have supplied for a statement through a drop-down list, as you can see in Screenshot 20 above. If you select a different rating level through this list then a window will appear that enables you to supply an updated justification for your rating, as shown in the following screenshot:


Justification
Reasoning for your rating:
Upload a PDF about your reasoning:
Browse...
Enter a link to further information about your rating:
Characteristics for rating level 3:
Mandate
Informal responsibility to manage data
Informal rights to undertake data management on basis of stakeholder assurances
Informal selection of data to manage assumed on basis of individual data characteristics
Documented data management objectives
Rating made on 19 April 2011
Clear
Save

Screenshot 22: Updating your rating justification through Stage 3

This pop-up works in exactly the same way as the 'Why?' box discussed in Section 10. Once you have supplied as much information as you think is appropriate click the **Save** button to submit your information and close the pop-up.

The **Overall Rating** column displays the average (mean) rating based on all the values supplied by the participants. Note that this value is rounded to the nearest whole number. If you would like a more detailed breakdown of this overall rating hover you mouse over the 'i' next to the rating and a pop-up containing information on the mean, mode, min and max values for all users and also for users who were explicitly assigned the statement will be displayed, as shown in the following screenshot:



Screenshot 23: Pop-up showing overall information data

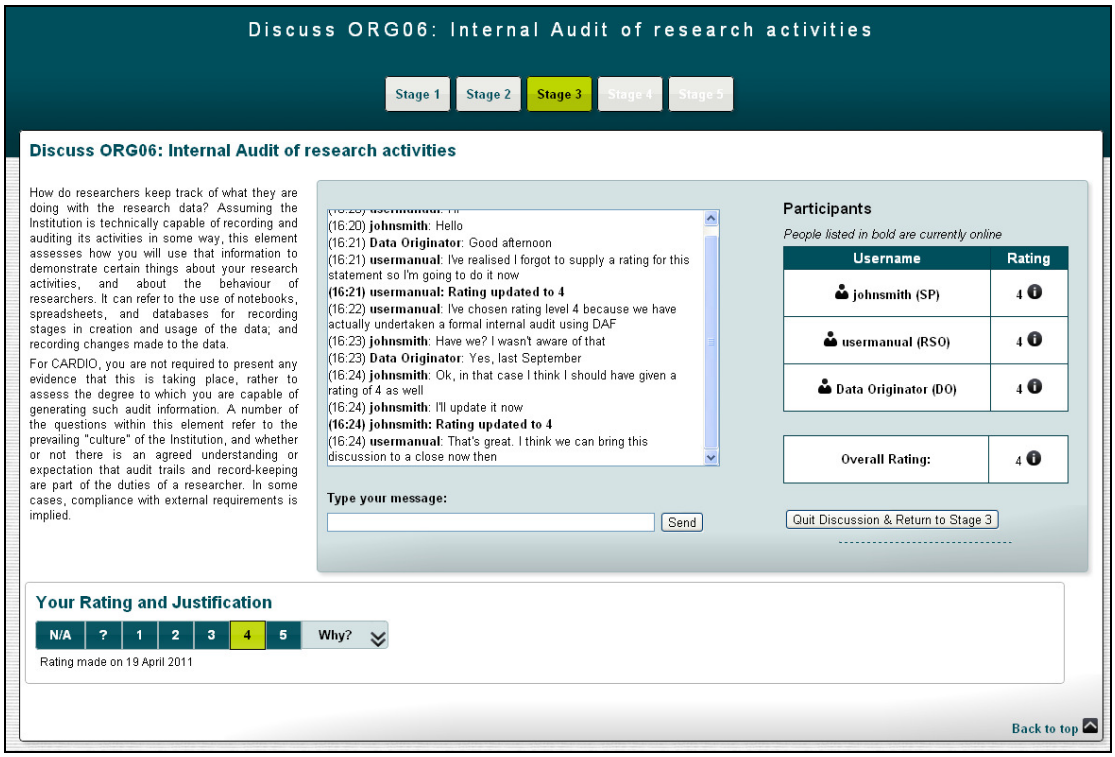
If you are the RSO of the process you may also override the overall rating that has been calculated for a statement. This may be necessary if, for example, you feel that one participant's rating is of more value than other users. Supplying an overall rating takes place in the same manner as updating your own rating as discussed above. Once the rating has been stored the overall rating pop-up will display a notification that the rating was supplied by the RSO and is not a calculated value, in addition to displaying all of the calculated information as previously discussed.

15. The CARDIO Discussion Tool

In the final column of the table of statements in Stage 3 there is a button labelled **Discuss** (see screenshot 20 above). If you hover your mouse over the **Discuss** button a pop-up will display any recent activity that has taken place within this statement's discussion, including information about any users that are currently viewing the discussion page.

Clicking on the **Discuss** button opens up the CARDIO discussion tool for the statement in question. The discussion tool is a dedicated instant messaging system that provides each participant with all of the information they need in order to discuss

a statement and the ratings that relate to it. Screenshot 24 below provides a demonstration of the interface:


Discuss ORG06: Internal Audit of research activities
Stage 1
Stage 2
Stage 3
Stage 4
Stage 5
Discuss ORG06: Internal Audit of research activities
How do researchers keep track of what they are doing with the research data? Assuming the Institution is technically capable of recording and auditing its activities in some way, this element assesses how you will use that information to demonstrate certain things about your research activities, and about the behaviour of researchers. It can refer to the use of notebooks, spreadsheets, and databases for recording stages in creation and usage of the data; and recording changes made to the data.
For CARDIO, you are not required to present any evidence that this is taking place, rather to assess the degree to which you are capable of generating such audit information. A number of the questions within this element refer to the prevailing "culture" of the Institution, and whether or not there is an agreed understanding or expectation that audit trails and record-keeping are part of the duties of a researcher. In some cases, compliance with external requirements is implied.
(16:20) johnsmith: Hello
(16:21) Data Originator: Good afternoon
(16:21) usermanual: I've realised I forgot to supply a rating for this statement so I'm going to do it now
(16:21) usermanual: Rating updated to 4
(16:22) usermanual: I've chosen rating level 4 because we have actually undertaken a formal internal audit using DAF
(16:23) johnsmith: Have we? I wasn't aware of that
(16:23) Data Originator: Yes, last September
(16:24) johnsmith: Ok, in that case I think I should have given a rating of 4 as well
(16:24) johnsmith: I'll update it now
(16:24) johnsmith: Rating updated to 4
(16:24) usermanual: That's great. I think we can bring this discussion to a close now then
Type your message:
Send
Participants
People listed in bold are currently online
Username
Rating
johnsmith (SP)
4
usermanual (RSO)
4
Data Originator (DO)
4
Overall Rating:
4
Quit Discussion & Return to Stage 3
Your Rating and Justification
N/A
?
1
2
3
4
5
Why?
Rating made on 19 April 2011
Back to top

Screenshot 24: The CARDIO discussion tool

As the above screenshot demonstrates, to the left of the discussion tool you will find the statement in question, together with its description and any other associated information. Towards the right of the blue box is a list of all the participants who are involved with the process. If the name appears in bold this means the person is currently using the CARDIO tool.

If you hover your mouse cursor over a participant's username a pop-up will display some additional user information for the person. Hovering over a participant's rating will display all of the information supplied about the rating. Similarly, hovering over the overall rating will open up a table providing a detailed breakdown of the overall rating in the same way as shown in Screenshot 23 above.

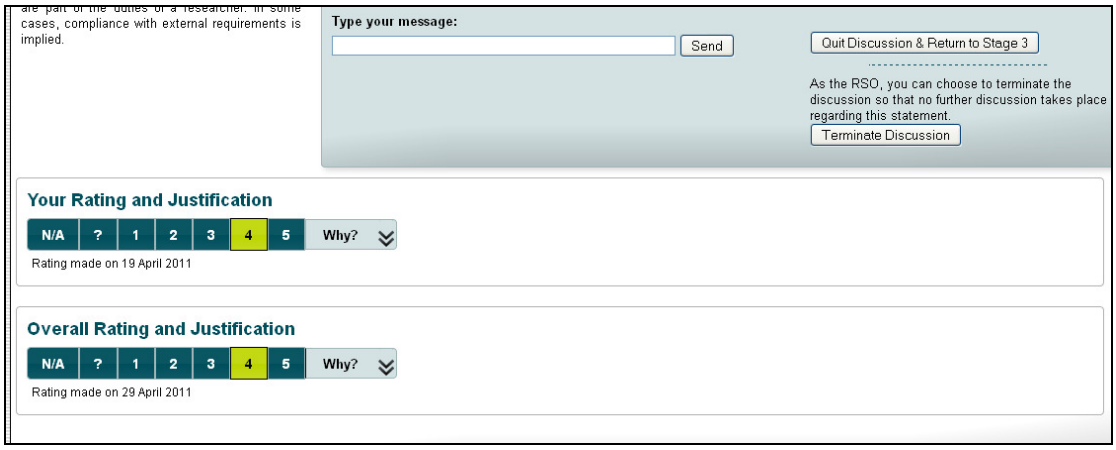
Towards the centre of the page is the chat interface for the discussion tool. This consists of a scrollable area where any messages posted by participants are displayed and a textbox underneath through which you can post your own messages. To post a message simply type into the **Type your message** box and either click the **Send** button or press the enter key. After a brief delay your message will appear in the box above and any participant who views the discussion page for the statement in question will be able to view your message.

If during the course of your discussions you reach the conclusion that you would like to update your rating this can be accomplished through the rating and justification section beneath the chat interface. This works in an identical manner to the options

provided through the three legged stool as discussed in Section 10 above. In addition, clicking on a new rating level will post a notification message to the chat window and will automatically update the overall rating for the statement.

To quit the discussion and return to Stage 3 of the process click on the **Quit Discussion & Return to Stage 3** button or click on the **Stage 3** button in the blue bar above the main page.

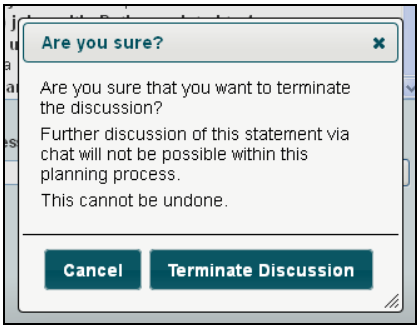
If you are logged in as an RSO user you will also be able to supply an updated overall rating for the statement if necessary. This option will appear beneath the option for updating your individual rating, as the following screenshot demonstrates, and operates in an identical manner.


cases, compliance with external requirements is implied.
Type your message:
Send
Quit Discussion & Return to Stage 3
As the RSO, you can choose to terminate the discussion so that no further discussion takes place regarding this statement.
Terminate Discussion
Your Rating and Justification
N/A ? 1 2 3 4 5 Why?
Rating made on 19 April 2011
Overall Rating and Justification
N/A ? 1 2 3 4 5 Why?
Rating made on 29 April 2011

Screenshot 25: Additional RSO options

Supplying an overall rating will override the automatically calculated overall rating and you can choose to select characteristics and supply justification for this overall rating.

As an RSO you may also choose to terminate the discussion for the current statement. Doing so prevents any further discussion from taking place about the statement; participants will still be able to view the log of previous messages but no further postings will be possible. Click on the **Terminate Discussion** button to finalise the discussion for the statement in question. This will bring up a confirmation box as shown in the following screenshot. Click the **Terminate Discussion** button within this box to complete the process of finalising the discussion.


Are you sure?
Are you sure that you want to terminate the discussion?
Further discussion of this statement via chat will not be possible within this planning process.
This cannot be undone.
Cancel
Terminate Discussion

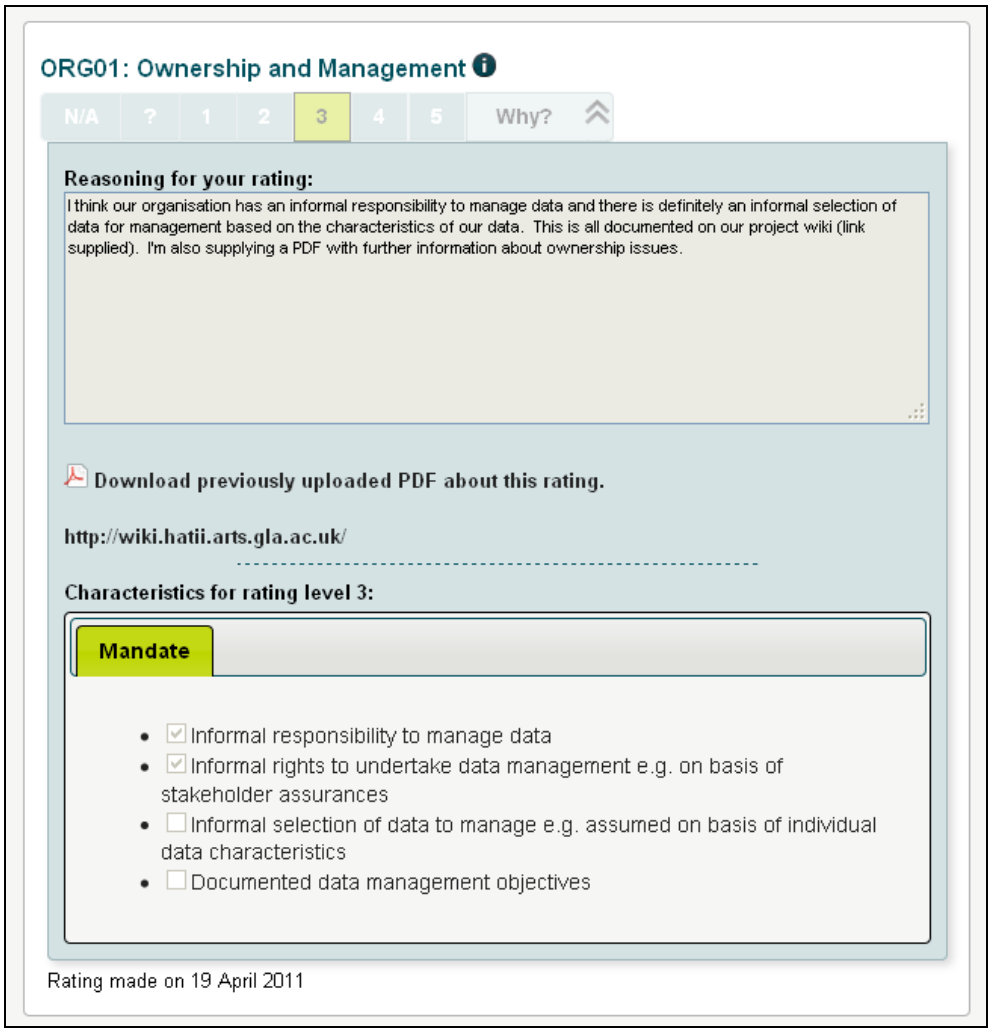
Screenshot 26: Terminate Discussion confirmation box

16. Completing Stage 3

The overall aim of Stage 3 is to compare your own ratings to those of other participants, to identify areas where perceptions differ and to try and gain an understanding of why differences in perception exist. Through the CARDIO discussion tool you can clarify and document these perceptions and attempt to reach a consensus for each statement. There will be instances where participants simply cannot agree on one rating level for a statement and it is in such cases that the RSO should act as an arbitrator and assign an overall rating that s/he considers best represents the differing viewpoints of the participants.

Once as many statements as are necessary have been rated and discussed the RSO can choose to bring all of the discussions to a close and to proceed to the next stage in the process. If you are an RSO user you can achieve this by clicking on the **Finalise Stage 3 and proceed to Stage 4** button in the bottom right corner of the main page. Doing so will activate Stage 4 for all participants and will take you to Stage 4.

It should be noted that proceeding to Stage 4 finalises the information that was supplied during the previous three stages. Once you click on the Finalise Stage 3 button it will not be possible for any participants to make any further updates to rating levels, justification or characteristics. You will still be able to view all of the information contained in stages one to three by clicking on their respective buttons in the blue bar above the main page, but the information will be presented in a 'read-only' manner as the following screenshot demonstrates.


ORG01: Ownership and Management
N/A
?
1
2
3
4
5
Why?
Reasoning for your rating:
I think our organisation has an informal responsibility to manage data and there is definitely an informal selection of data for management based on the characteristics of our data. This is all documented on our project wiki (link supplied). I'm also supplying a PDF with further information about ownership issues.
Download previously uploaded PDF about this rating.
http://wiki.hatii.arts.gla.ac.uk/
Characteristics for rating level 3:
Mandate
Informal responsibility to manage data
Informal rights to undertake data management e.g. on basis of stakeholder assurances
Informal selection of data to manage e.g. assumed on basis of individual data characteristics
Documented data management objectives
Rating made on 19 April 2011

Screenshot 27: 'Read-only' view

17. Stage 4

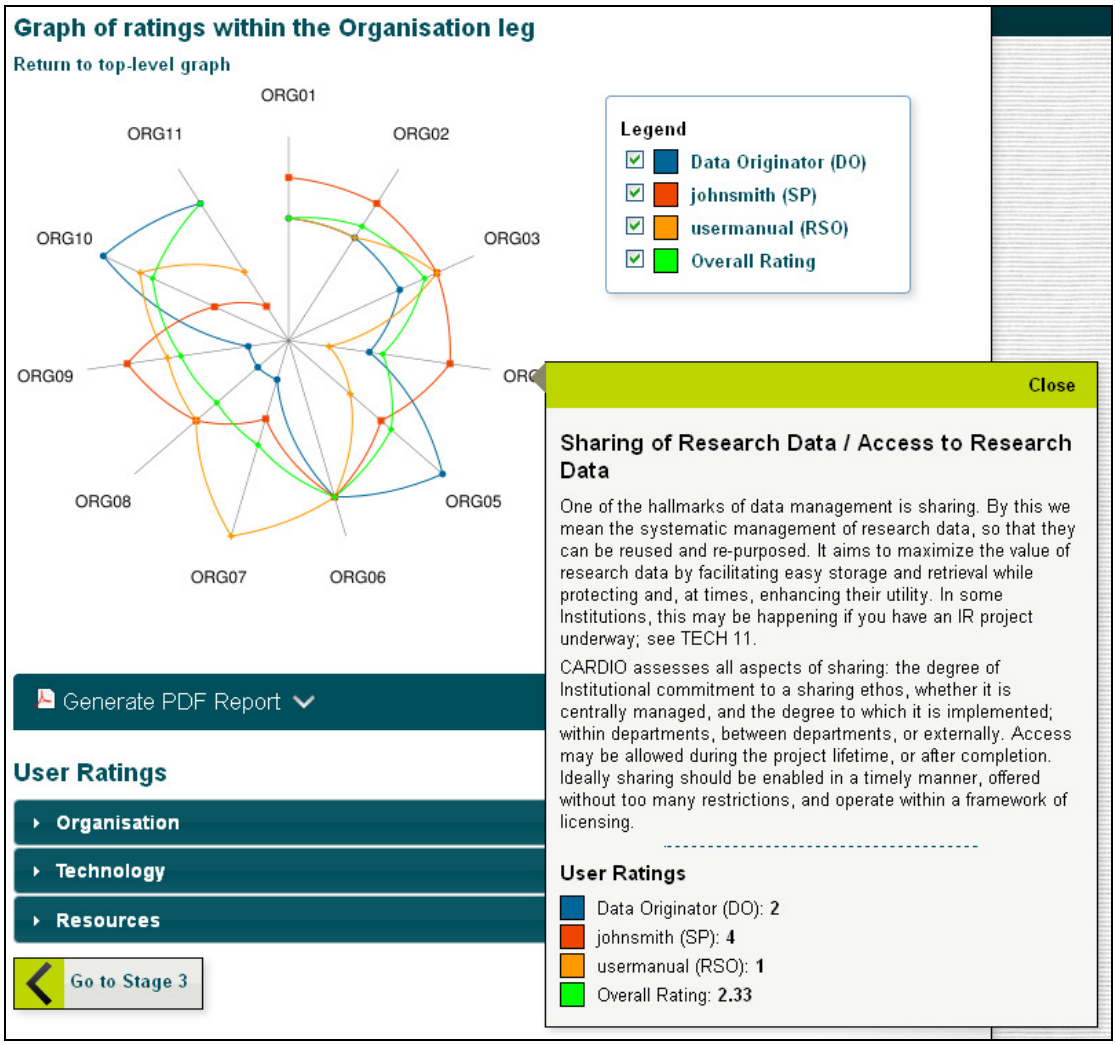
Once Stage 3 has been finalised you will be able to view Stage 4. The purpose of Stage 4 is to gather all of the information supplied during the previous stages together and to present it in an easy to follow visual manner. Through this stage it is also possible to export the supplied information as a PDF for further use beyond the CARDIO tool. When you first reach Stage 4 a radar graph that plots each participant's overall ratings for each of the three legs will be displayed, as the following screenshot demonstrates.

Stage 1
Stage 2
Stage 3
Stage 4
Stage 5
Invite Participant
Manage Participants
Graph of overall ratings across the three legs
Click on a leg name to view a graph of the statements within the leg.
Organisation
Legend
Data Originator (DO)
johnsmith (SP)
usermanual (RSO)
Overall Rating
Resources
Close
Technology
Technological Infrastructure consists of the requisite equipment, software, hardware, a secure environment, and skills to establish and maintain the digital preservation programme. It anticipates and responds wisely to changing technology. It addresses this key development question: How will the organisation meet defined digital preservation requirements?
View a radar graph of this leg
Generate PDF Report
User Ratings
Organisation
Technology
Resources
Go to Stage 3
Go to Stage 5
Back to top

Screenshot 28: Stage 4 showing the top-level graph

Through the top-level graph you can easily identify any discrepancies between participant's ratings of each leg, and where the overall rating fits. Within the legend towards the right of the page you can hover over a participant name to view more information about the participant in question. Clicking on the checkbox beside a participant's name will remove this user from the graph and clicking a second time will reinstate the user.

If you hover your mouse cursor over an axis label a pop-up will display a description of the leg and will present you with the option of opening a graph of the statements within the selected leg. It is when you drill-down into the statements contained within a leg that the radar graphs become more enlightening, as the following screenshot demonstrates:

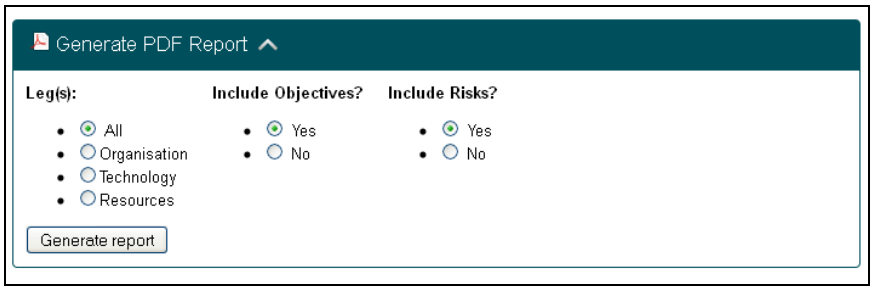

Graph of ratings within the Organisation leg
Return to top-level graph
ORG01
ORG02
ORG03
ORG05
ORG06
ORG07
ORG08
ORG09
ORG10
ORG11
Legend
Data Originator (DO)
johnsmith (SP)
usermanual (RSO)
Overall Rating
Close
Sharing of Research Data / Access to Research Data
One of the hallmarks of data management is sharing. By this we mean the systematic management of research data, so that they can be reused and re-purposed. It aims to maximize the value of research data by facilitating easy storage and retrieval while protecting and, at times, enhancing their utility. In some Institutions, this may be happening if you have an IR project underway; see TECH 11.
CARDIO assesses all aspects of sharing: the degree of Institutional commitment to a sharing ethos, whether it is centrally managed, and the degree to which it is implemented; within departments, between departments, or externally. Access may be allowed during the project lifetime, or after completion. Ideally sharing should be enabled in a timely manner, offered without too many restrictions, and operate within a framework of licensing.
User Ratings
Data Originator (DO): 2
johnsmith (SP): 4
usermanual (RSO): 1
Overall Rating: 2.33
Generate PDF Report
User Ratings
Organisation
Technology
Resources
Go to Stage 3

Screenshot 29: Radar graph of statement ratings within 'Organisation'

The radar graphs of a selected leg display each of the statements within the leg as axes, with the ratings given by each participant together with the overall rating plotted along these axes. Through these graphs it is easy to observe the various points of convergence and divergence in order to plan for future improvement.

As with the top level graph you can hide and show the points plotted for one or more participants by clicking on the checkboxes in the legend in order to make the graph easier to follow. You can also hover over an axis label in order to display a pop-up that contains the Statement description together with a breakdown of the user ratings that are plotted on the graph, as shown in the above screenshot.

Beneath the graph is an option labelled **Generate PDF Report**. Clicking on this will display a set of options that enable to you tailor a report to your specific needs, as the following screenshot demonstrates:



Screenshot 30: PDF generation options

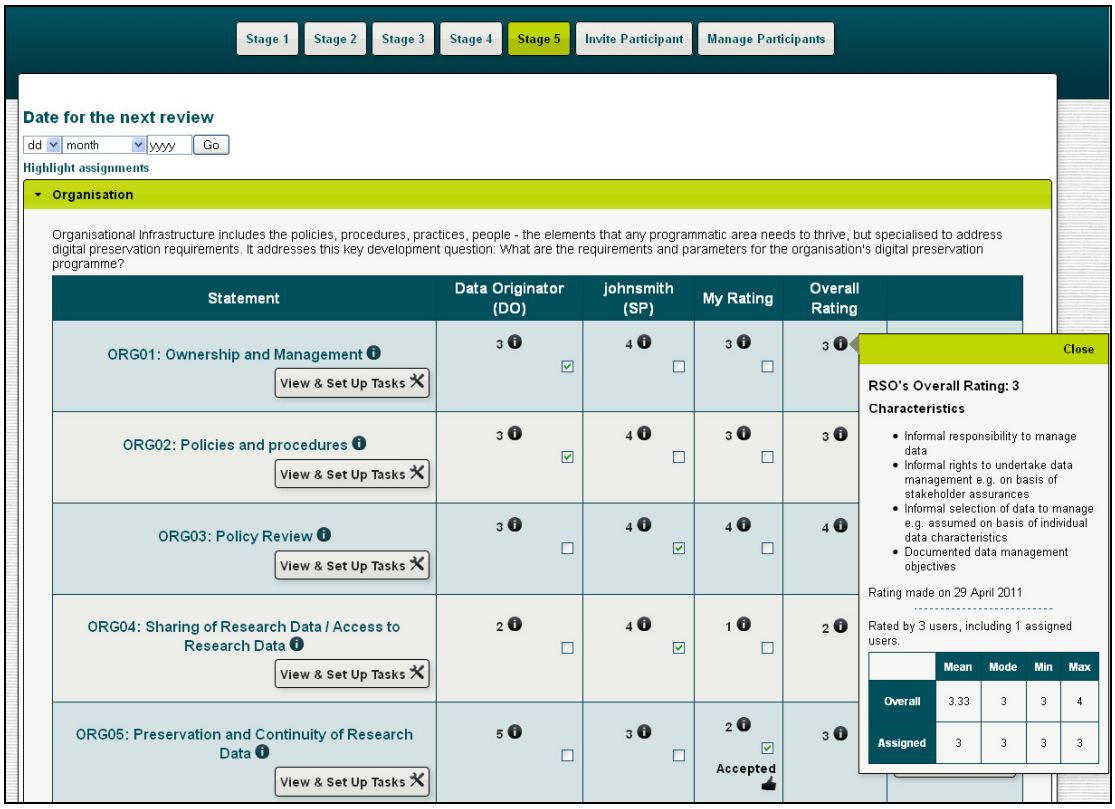
Through these options you can specify if you would like your report to focus on one particular leg or all legs, and whether the report should include the objectives and risks. Once you have completed Stage 5 further options will also be available for including task assignment (see Section 18 below for more information).

Depending on the options selected, the generated PDF will contain all of the information supplied by users in the previous three stages, including contextual information about the organisation, details of participants, all of the graphs that are available through Stage 4, statement descriptions and ratings, justifications and summaries. Once generated you may save the PDF and use the data contained within as you see fit.

The final section of Stage 4 as shown in Screenshot 28 above is the **User Ratings** section. This presents a summary of all of the user ratings for each statement across the three legs in a similar manner to Stage 3.

18. Stage 5 for RSO users

If you are an RSO user you will be able to navigate from Stage 4 to Stage 5 as soon as you have finalised Stage 3. At Stage 5 it is the job of the RSO to assign a date for the next review (if applicable) and to assign responsibility for improving certain aspects of the organisation's capacity for managing research data to one or more participants. This is all achieved through an interface that is similar to the one used in Stage 3, as shown in the following screenshot:


Stage 1
Stage 2
Stage 3
Stage 4
Stage 5
Invite Participant
Manage Participants
Date for the next review
dd
month
yyyy
Go
Highlight assignments
Organisation
Organisational Infrastructure includes the policies, procedures, practices, people - the elements that any programmatic area needs to thrive, but specialised to address digital preservation requirements. It addresses this key development question: What are the requirements and parameters for the organisation's digital preservation programme?
Statement
Data Originator (DO)
johnsmith (SP)
My Rating
Overall Rating
ORG01: Ownership and Management
ORG02: Policies and procedures
ORG03: Policy Review
ORG04: Sharing of Research Data / Access to Research Data
ORG05: Preservation and Continuity of Research Data
View & Set Up Tasks
Accepted
Close
RSO's Overall Rating: 3
Characteristics
Informal responsibility to manage data
Informal rights to undertake data management e.g. on basis of stakeholder assurances
Informal selection of data to manage e.g. assumed on basis of individual data characteristics
Documented data management objectives
Rating made on 29 April 2011
Rated by 3 users, including 1 assigned users.
Mean
Mode
Min
Max
Overall
3.33
Assigned

Screenshot 31: RSO view of Stage 5

To specify a date for the next review, find the **Date for the next review** section towards the top of the page and simply select a day and a month from the appropriate lists and enter a year into the **yyyy** box. Clicking **Go** will then record your review date. You may update this at any point until you finalise the planning process.

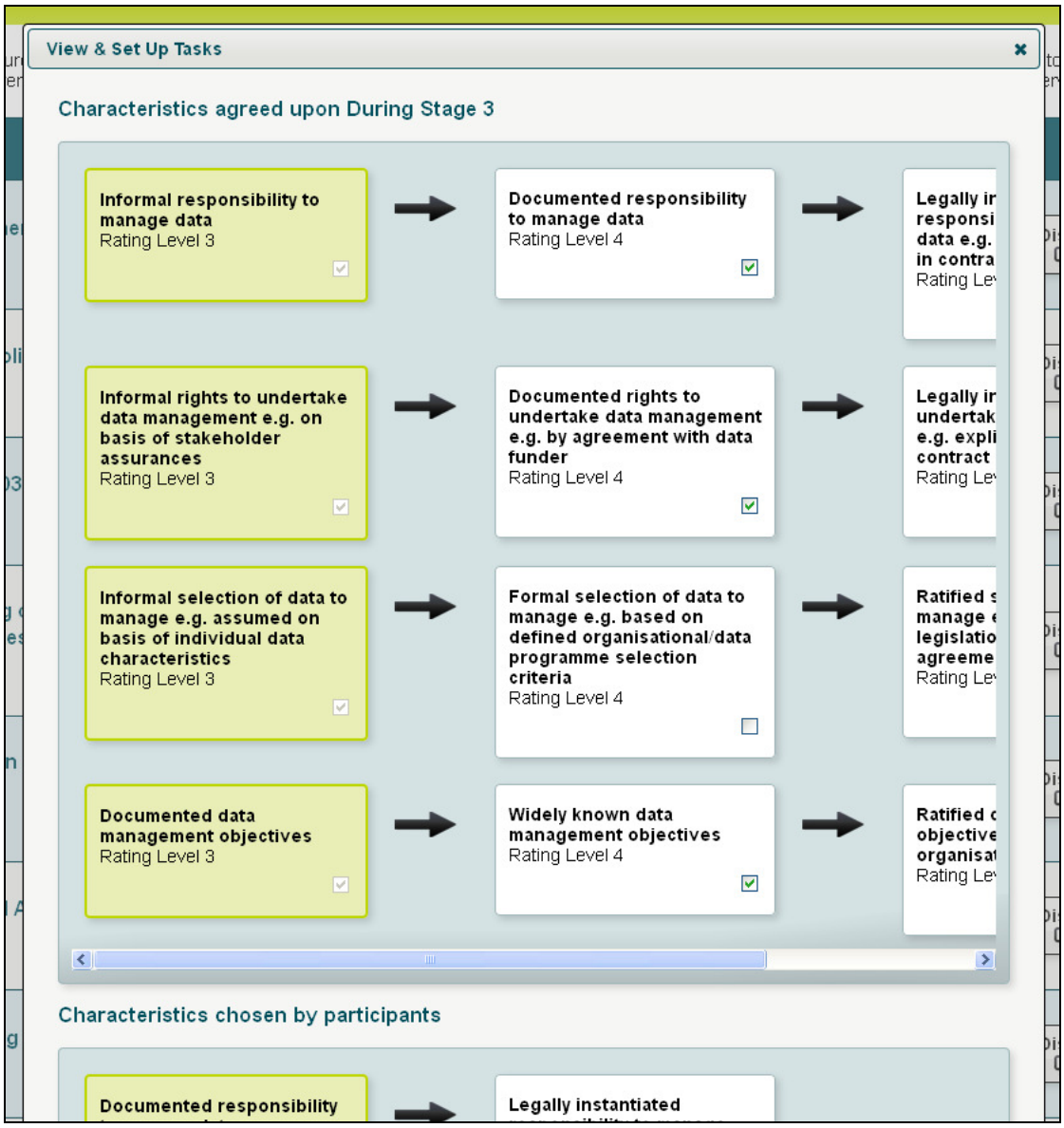
Within each leg there is a table containing the statements and the ratings made by each participant. As with the tables in Stage 3, it is possible to hover over the statement titles, the participant's username and the ratings in order to display further information. In the final column there is a button labelled **View Discussion.** Clicking on this will take you to the CARDIO discussion tool page for the statement in question as a quick way to check what might have been previously discussed.

Within each table cell that contains a participant's rating for a statement you will see a checkbox. Clicking on this will assign responsibility for improving the rating for this statement to the individual in question. Clicking a second time will remove the assignment. You may also assign joint responsibility to more than one participant for a statement if you think this is appropriate.

Additionally, you may also assign responsibility for improving the statement rating to yourself, and doing so will immediately display an **accepted** icon. For assignments to other participants the user in question must choose to accept responsibility before such an icon appears, as is discussed below.

It should be noted that you do not need to assign responsibility for all statements, only those you would like to focus on improving before the next review period. Once you

have identified the statements you would like to improve and have assigned these to one or more participants you can then choose which specific tasks the individuals should be focussing on. This can be achieved by clicking on the **View & Set Up Tasks** button for the appropriate statement. Doing so will open up a window that provides you with some possible avenues for improvement based on the characteristics chosen individually by the participants and jointly as a result of discussions in Stage 3 as shown in the screenshot below:


View & Set Up Tasks
Characteristics agreed upon During Stage 3
Informal responsibility to manage data
Rating Level 3
Documented responsibility to manage data
Rating Level 4
Informal rights to undertake data management e.g. on basis of stakeholder assurances
Rating Level 3
Documented rights to undertake data management e.g. by agreement with data funder
Rating Level 4
Informal selection of data to manage e.g. assumed on basis of individual data characteristics
Rating Level 3
Formal selection of data to manage e.g. based on defined organisational/data programme selection criteria
Rating Level 4
Documented data management objectives
Rating Level 3
Widely known data management objectives
Rating Level 4
Characteristics chosen by participants
Documented responsibility
Legally instantiated

Screenshot 32: View & Set Up Tasks

The characteristics highlighted in yellow are those that have been selected during earlier stages. Each characteristic leads to another at a higher rating level and it is possible to view these for each higher rating level to decide which should be the focus for improvement before the next review. Clicking on the checkbox within a characteristic's box will select the characteristic as the focus for improvement before the next review.

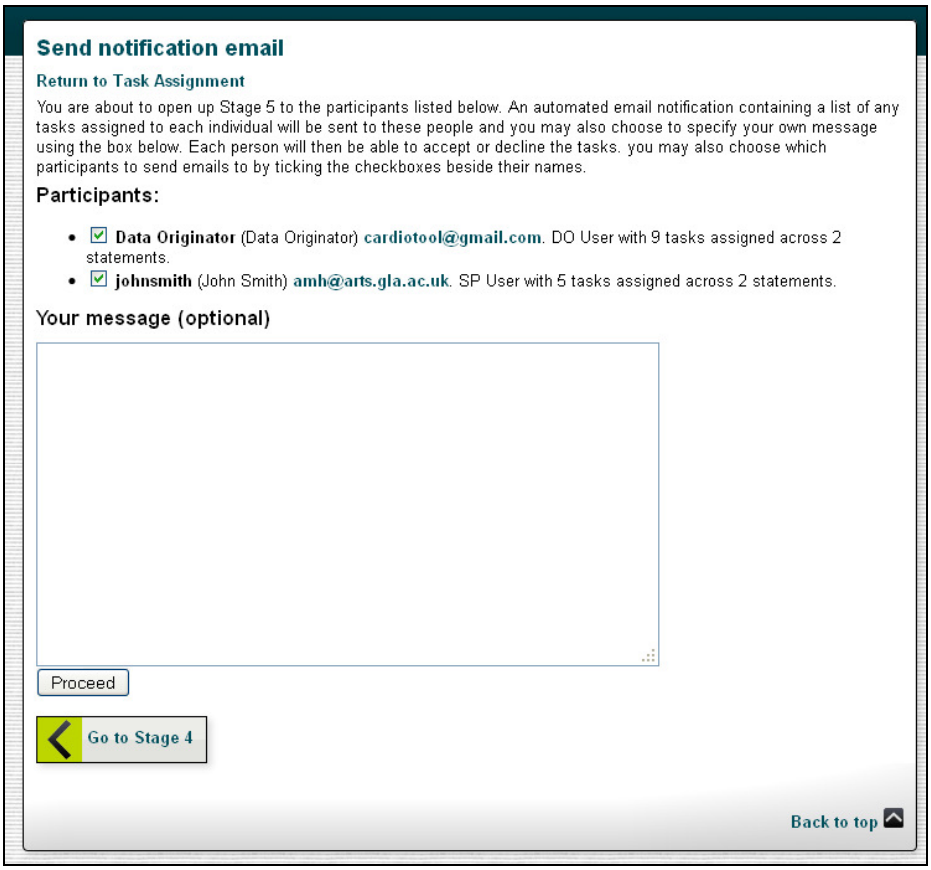
To view the higher levels for each characteristic you can either use the horizontal scrollbar underneath the list of characteristics or you can click and hold the left mouse button within the blue area and move the mouse left or right to scroll the area.

Beneath the sections for selecting characteristics is a textbox where you can supply any further instructions that you would like to pass on to the participants who have been assigned to the statement.

Note that if no characteristics were chosen for the statement either individually by users or jointly through Stage 3 then the 'View & Set Up Tasks' screen will only display the textbox. You can still use this textbox to suggest which areas a participant should focus on improving but it is better to use the characteristics to provide a more structured progression.

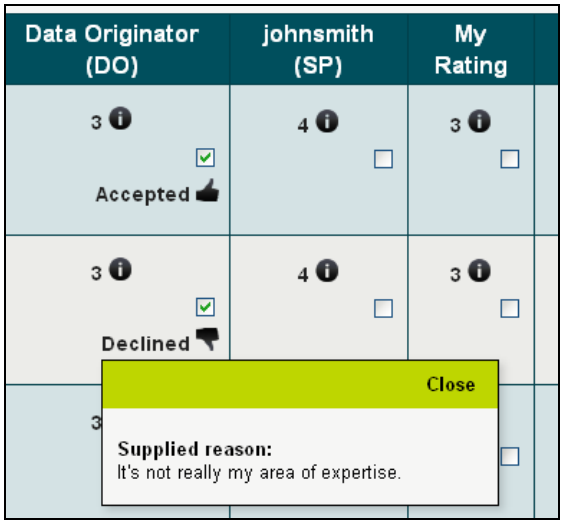
Once you are satisfied with the information you have selected and entered, click the **Save** button at the bottom of the screen to record the information and close the page. You may re-open the list of tasks and update the selection at any point until the process is finalised.

Once you have assigned participants to all required statements and have selected which characteristics they are tasked with improving you can make Stage 5 available to all participants by clicking on the **Activate Stage 5 for all users and send notification emails** button in the bottom right of the page. This will load a page where you can decide which participants should be sent a notification email and what message should be contained within the email as shown in the screenshot below:


Send notification email
Return to Task Assignment
You are about to open up Stage 5 to the participants listed below. An automated email notification containing a list of any tasks assigned to each individual will be sent to these people and you may also choose to specify your own message using the box below. Each person will then be able to accept or decline the tasks. you may also choose which participants to send emails to by ticking the checkboxes beside their names.
Participants:
Data Originator (Data Originator) cardiotool@gmail.com. DO User with 9 tasks assigned across 2 statements.
johnsmith (John Smith) amh@arts.gla.ac.uk. SP User with 5 tasks assigned across 2 statements.
Your message (optional)
Proceed
Go to Stage 4
Back to top

Screenshot 33: Activating Stage 5

Once Stage 5 is activated for all participants you will begin to receive notification emails as each user accepts or declines responsibility for their assigned statements. Each of these responses will be logged through Stage 5, as the following screenshot demonstrates:



Screenshot 34: User Responses logged through Stage 5

If you hover over the **Accepted** or **Declined** text you will be able to view the supplied date by which the participant aims to have the tasks completed, or the supplied reason as to why the participant declined to accept responsibility.

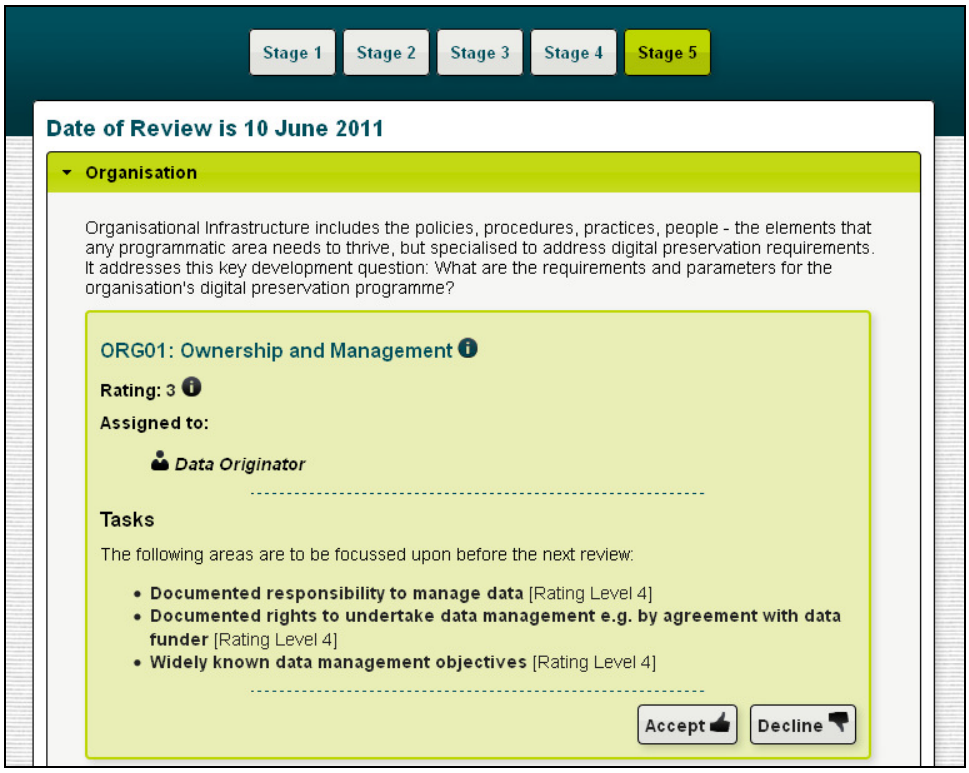
Note that you can reassign responsibility after the user has accepted or declined. Simply unselect the checkbox above the accepted / declined text and the user will no longer be associated with the statement in the system. You may then assign the statement to another user, or reassign it to the same user after updating the associated tasks if necessary.

To ensure participants are kept up to date with their assignments you can resend the notification emails by clicking on the **Resend notification emails** button at the bottom right of the page. This will load the same page as shown in Screenshot 33 above, and if necessary you can limit the recipients of the email to only those affected by your updates.

19. Stage 5 for DO and SP users

When Stage 5 has been activated you will be able to navigate to it by clicking on the **Stage 5** button in the blue bar above the main page or by clicking on the **Go to Stage 5** button at the bottom right of Stage 4. During Stage 5 the RSO may assign one or more statements to you, specifying particular tasks that should be focussed on before the next review. Through Stage 5 you are given the option of accepting or declining to take responsibility for these statements.

When you first load Stage 5 you will be presented with the three legged stool containing all of the available statements. Above this the date of the next review will be displayed, if this was specified by the RSO. Any statements that have been assigned to you will be highlighted in yellow, as the following screenshot demonstrates:

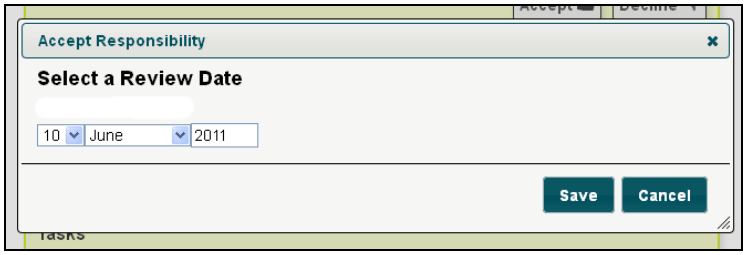

Stage 1
Stage 2
Stage 3
Stage 4
Stage 5
Date of Review is 10 June 2011
Organisation
Organisational Infrastructure includes the policies, procedures, practices, people - the elements that any programmatic area needs to thrive, but specialised to address digital preservation requirements. It addresses this key development question: What are the requirements and parameters for the organisation's digital preservation programme?
ORG01: Ownership and Management
Rating: 3
Assigned to:
Data Originator
Tasks
The following areas are to be focussed upon before the next review:
Documented responsibility to manage data [Rating Level 4]
Documented rights to undertake data management e.g. by agreement with data funder [Rating Level 4]
Widely known data management objectives [Rating Level 4]
Accept
Decline

Screenshot 35: An assigned Statement in Stage 5

If you hover your mouse cursor over the statement title the statement description, objectives and risks will be displayed in a pop-up. If you hover over the rating a pop-up will display information about the source of the rating and any chosen characteristics. Hovering over the username will display information about the user.

Within the **Tasks** section of the Statement box you will find a list of those characteristics at a higher level that the RSO would like you to try and focus on attaining within your organisation before the specified review date, together with any additional text the RSO may have supplied. Beneath this list you will see buttons labelled **Accept** and **Decline**.

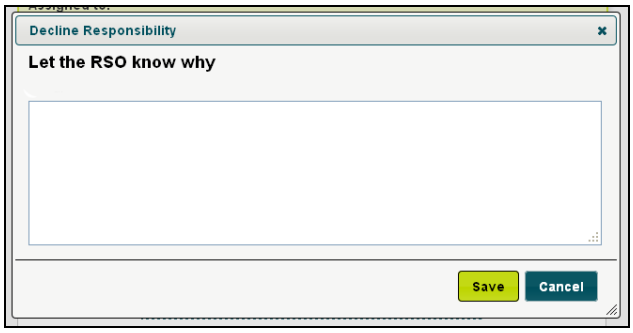
If you are happy to accept responsibility for the specified tasks click on the **Accept** button and a window will load that allows you to select a date for when you aim to make the improvements by, as shown in the screenshot below. If the RSO has supplied a review date then this will appear by default, but you can override this if necessary. Once a date is supplied click the **Save** button and your acceptance will be logged.



Screenshot 36: Accepting Responsibility for a Statement

Stage 5 will then reload and in place of the 'accept' and 'decline' buttons you will see **Task responsibility accepted.**

If you do not wish to accept responsibility for the specified tasks click on the **Decline** button and a window will load that will allow you to enter a reason. This is intended to help the RSO reassign the statement to another person or to select more applicable tasks and then reassign it to you again if appropriate. Simply type your text into the text area and click the **Save** button for your decision to be logged.



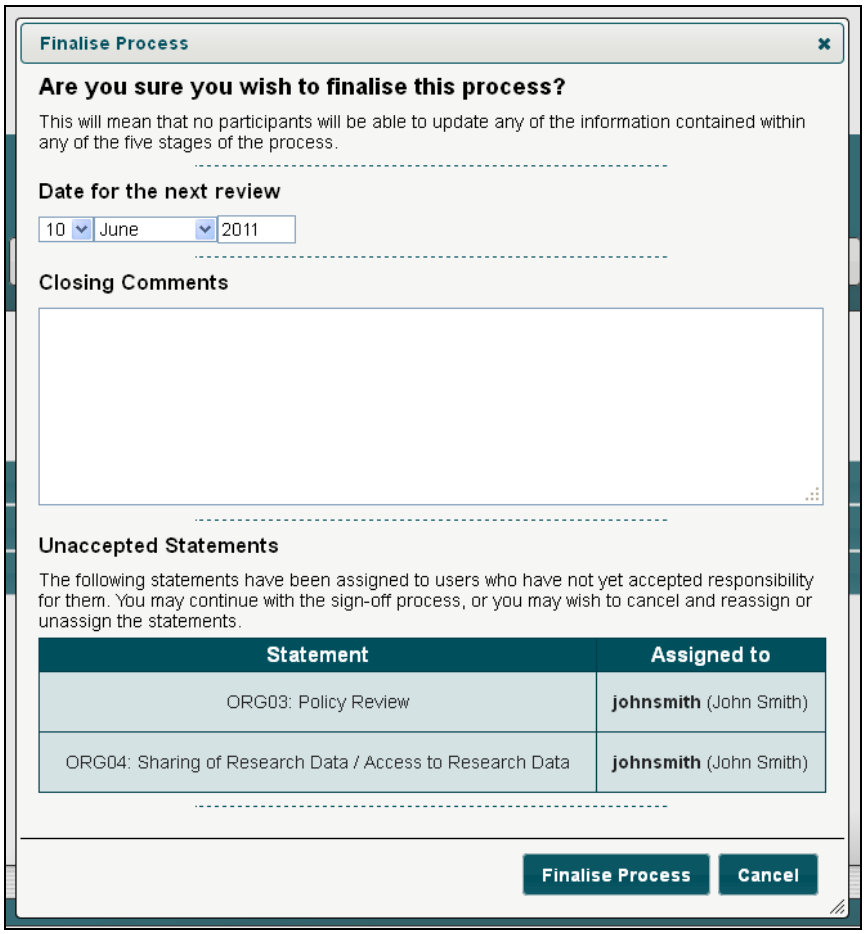
Screenshot 37: Declining Responsibility for a Statement

Stage 5 will then reload and in place of the 'accept' and 'decline' buttons you will see **Task responsibility declined.**

Once you have accepted or declined all the statements that have been assigned to you then your involvement with the current planning process will be complete. You may still revisit all of the earlier stages of the process, and the PDF report generation options in Stage 4 will now feature the option of including information about the tasks that have been assigned in Stage 5.

20. Finalising your planning process

As an RSO user, once all the required statements have been assigned to participants and have been accepted you can choose to finalise the planning process by clicking on the **Finalise Process** button at the bottom right of Stage 5. Finalising the process will enable you to provide some closing comments about the process and will then make all the stages of the process 'read-only' for all users. Clicking on the **Finalise Process** button will open a window similar to the following screenshot:


Finalise Process
Are you sure you wish to finalise this process?
This will mean that no participants will be able to update any of the information contained within any of the five stages of the process.
Date for the next review
10
June
2011
Closing Comments
Unaccepted Statements
The following statements have been assigned to users who have not yet accepted responsibility for them. You may continue with the sign-off process, or you may wish to cancel and reassign or unassign the statements.
Statement
Assigned to
ORG03: Policy Review
johnsmith (John Smith)
ORG04: Sharing of Research Data / Access to Research Data
johnsmith (John Smith)
Finalise Process
Cancel

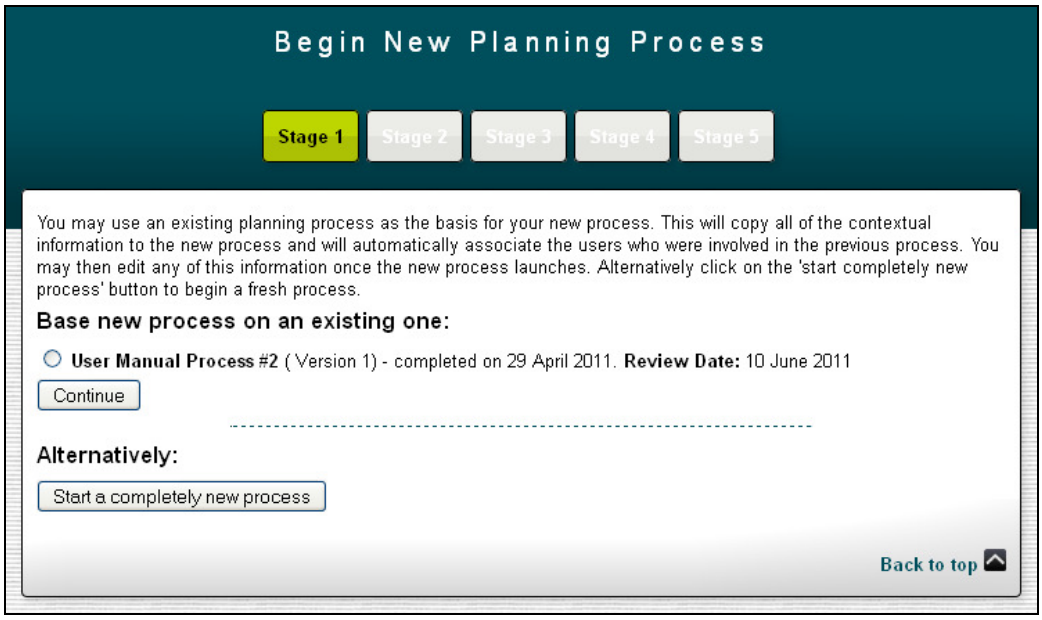
Screenshot 38: Finalise Process

Using this page you can change the date for the next review if necessary and supply your closing comments, which will be displayed at the bottom of Stage 5 for all participants to see. Also listed will be any statements that have been assigned to a participant but have not been accepted. You can proceed with the finalisation even if there are unaccepted statements, or you can choose to cancel the finalisation and reassign the statements. Clicking the **Finalise Process** button will complete the process and return you to Stage 5.

21. Starting a new iteration of a planning process

When you are ready to begin a new version of a planning process, for example if the date for the next review has been reached, you can easily base a new process on your existing one in one of two ways.

Firstly, when loading the **New Process** page as discussed in Section 9 above, any previously completed planning processes will be listed. Simply click on the radio button next to the appropriate planning process and click the **Continue** button and a new version of the process will be created.


Begin New Planning Process
Stage 1
Stage 2
Stage 3
Stage 4
Stage 5
You may use an existing planning process as the basis for your new process. This will copy all of the contextual information to the new process and will automatically associate the users who were involved in the previous process. You may then edit any of this information once the new process launches. Alternatively click on the 'start completely new process' button to begin a fresh process.
Base new process on an existing one:
User Manual Process #2 (Version 1) - completed on 29 April 2011. Review Date: 10 June 2011
Continue
Alternatively:
Start a completely new process
Back to top

Screenshot 39: Starting a new iteration of a planning process through the 'New Process' page.

Secondly, if you load Stage 5 of the completed planning process that you would like to create a new version of you will find a button labelled **Start a new iteration** at the bottom left of the page. Click on this to begin a new version.

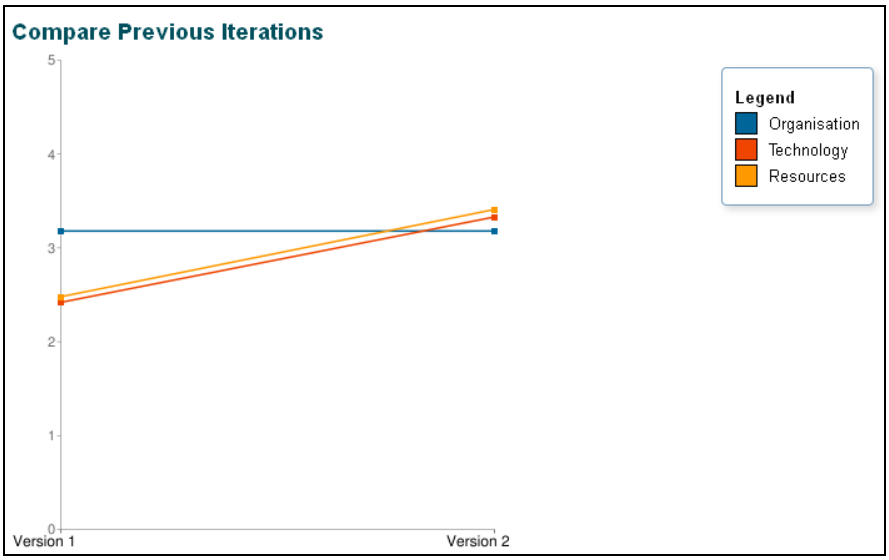
Starting a new version of an existing planning process will copy all of the contextual information you supplied in the previous version and will populate the new version with it. In addition all of the participants who were associated with the previous version will also be automatically associated with the new version. Note that you can however invite new participants or remove existing ones.

22. Comparing iterations of a planning process

When working through a subsequent iteration of a planning process most of the stages are identical to the initial run-through. The only differences are the contextual information in Stage 1 as discussed in the previous section, and the graphs that are available in Stage 4.

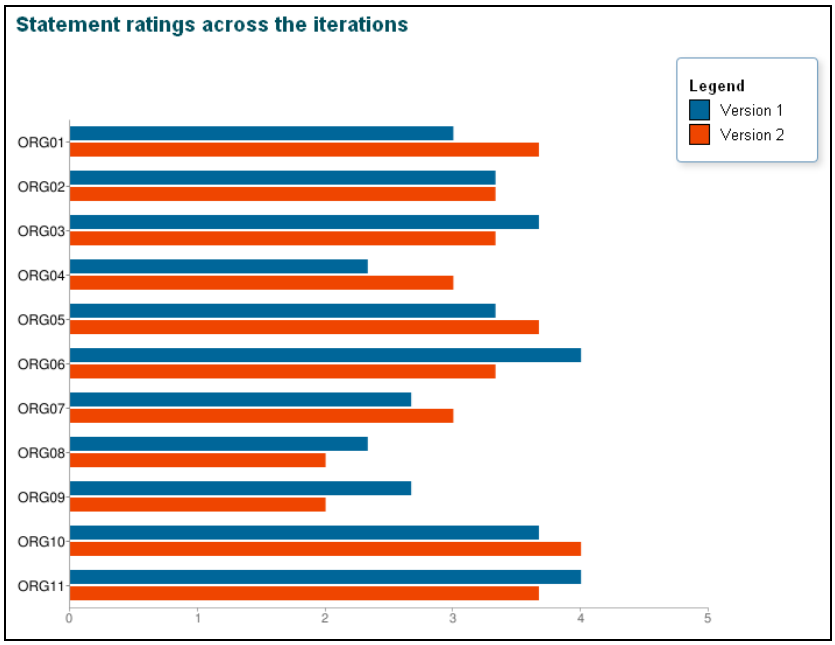
In addition to the graphs mentioned in Section 17 above, a selection of new graphs that plot changes in ratings over time through the various iterations are available. These graphs can help you identify where improvements have been made and other areas where the desired improvements have not come to fruition.

When viewing the top-level graphs, in addition to the graph showing the overall ratings of the three legs for the current iteration, there is a graph that plots the overall ratings for the three legs across all available iterations, as the following screenshot demonstrates:



Screenshot 40: Comparison of overall ratings across multiple iterations

When viewing the statement ratings within a leg for a planning process that has one or more previous iterations there is an additional graph that plots the overall ratings for each statement across each iteration, allowing you to tell at a glance where any improvements or regression might exist, as the following screenshot demonstrates:



Screenshot 41: Comparison of statement ratings across multiple iterations

23. Further Information and Supplying Feedback

If you require further information or help on a particular topic relating to CARDIO, please feel free to contact us at cardio@dcc.ac.uk.

If you have any feedback on the tool we would be delighted to hear from you at the same address.